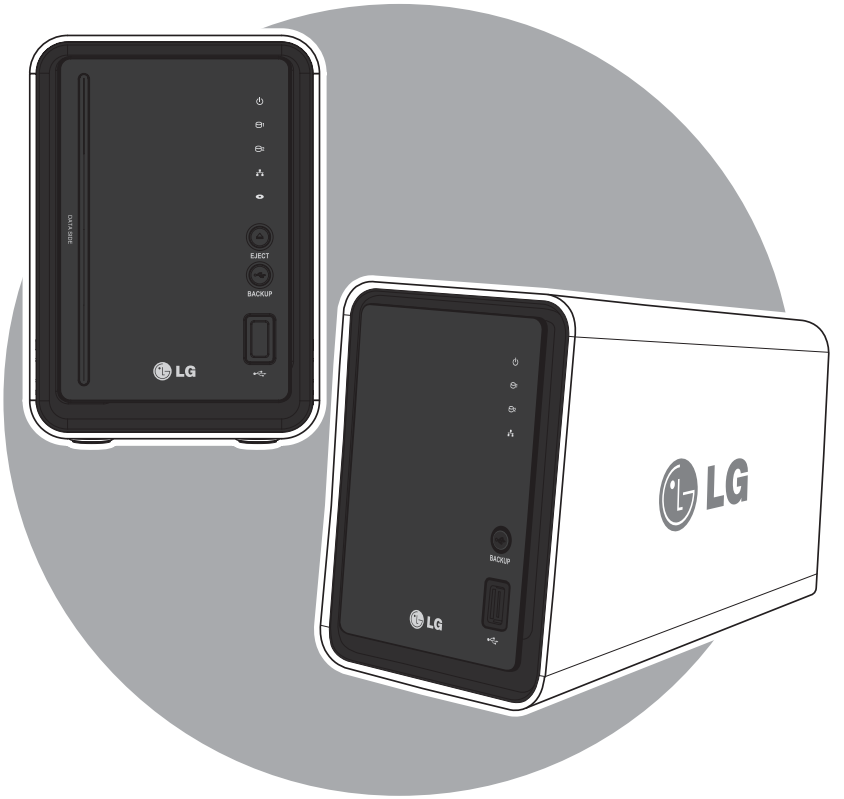
LG
Life's Good

Network Storage

User Manual

N2T2/N2A2



※ N2A2 model does not support ODD function

※ Please visit www.lg.com/nas for more product information.

Safety warning

Note	
1	Do not place any objects within 15cm of the unit. The unit reaches high temperatures creating the risk of burn injuries.
2	Only use compatible devices with the system ports, or the system and devices risk being damaged.
3	Do not use damaged disks. Product can be damaged.
4	Do not dismantle or change the structure of the system in any way. This may cause electric shock.
5	When dealing with system components, strictly abide by the instruction manual. Physical contact with the soldering on the backside of components may cause severe injury.
6	When transporting the system, first turn off the system and disconnect the unit from the power source. Sudden tension in cables can cause severe damage to the system. Loose cables can cause injury.
7	Take caution when handling the system so as not to corrupt the hard disk data. - Take caution not to bump or expose the system to extreme temperatures, as it may damage the sensitive hard disk. - Take caution when turning on the electricity, as during this time any external bumps to the system may corrupt the hard disk data. - The manufacturer disclaims all responsibility for loss of hard disk data.
8	Related to damage to the HDD and data: - during installation or disconnection of the system, ensure that the system does not experience any external physical shocks. - During the operation of the HDD, short surges and stoppages of power may cause the system to turn off and on quickly. - there may be a sudden stoppage of electricity during operation - avoid moving the system during operation of the HDD, which may cause external physical shock - during the configuration of new volumes. i) if during use, existing volumes are deleted and new volumes are created, data will be lost. ii) Before configuration of new volumes, each user must back up data, as well as when creating new volumes, to ensure the possibility of restoration. – e.g. virus infections. ※ Always back up hard disk data to avoid accidental data loss.
9	In the event of the administrator forgetting the password, restoration is impossible. Hence safeguard the password. ※ To create a new password, the system must be re-initialized. In this case, all data will be lost, and data recovery will be impossible, for security reasons. The manufacturer disclaims all responsibility in the event of this occurrence.
10	In the event of the cover being removed during operation, the user risks electric shock, injury, and damage to the system.

Safety warning

Warning	
1	Do not use damaged electrical cords. This may cause electric shock, and is a fire hazard.
2	Use a grounded cord and grounded socket to avoid electric shock and damage to components.
3	Do not handle the electrical cord with wet hands, as this may cause shock and injury.
4	When removing the plug from the socket, ensure that the plug is handled and not the cord. Otherwise this may cause damage to the plug and even fire.
5	Always check and use correct voltage to avoid electric shock, severe damage to the system, and fire.
6	Always use grounded cords and grounded sockets with correct capacity (voltage / current) to avoid the danger of damage, electric shock, and injury.
7	In the event of noise emanating from the electrical cords or sockets, to avoid fire and injury immediately disconnect, and contact the service centre.
8	Ensure that electrical cords are correctly plugged into the sockets to avoid fire.
9	Ensure that electrical cords are not damaged or do not have heavy objects placed on them. Keep electrical cords away from children and pets. Damaged cords may cause electrical shock or fire.
10	Keep the power cords and sockets clean at all times to avoid fire and electrical shock.
11	In the event of moisture entering the system, immediately disconnect the power and contact the service centre, to avoid the danger of system damage, electrical shock, and fire.
12	Do not block vents, as this will cause system damage.
13	Prior to cleaning the system, always disconnect the power, to avoid damage and electric shock.
14	In the event of lighting and thunderstorms, immediately physically disconnect the system from any power source, to avoid damage to the system.
15	In the event of dropping the system, contact the service centre for advice and possible service. Not doing this creates the risk of damage, fire and electric shock.
16	Keep the system away from direct sunlight to avoid overheating, and melting of the case, which may eventuate in fire and injury.
17	Do not place flammable objects, candles or cigarettes on the system, as this may cause fire
18	In the event of a burning smell or smoke emanating from the system, immediately disconnect the power, and contact the service centre.
19	Keep heating devices and other electrical components at a distance from the system to avoid case melting, and hence the danger of damage, fire, and electric shock.
20	Before disassembling the system, always ensure physical disconnection of the electrical cable from the socket.

Safety warning

Warning	
21	Do not disassemble the power supply, to avoid the danger of electric shock.
22	Keep children away from the system, as consuming any parts will cause serious injury. In the event of swallowing any parts, such as screws, immediately seek medical treatment.
23	Ensure that multipoint power sockets are not overloaded, to avoid the danger of fire and electric shock. Ensure that cords are always neatly arranged and are not trapped under the system or other heavy objects. When connecting and disconnecting the electrical cord, take care in handling the socket to avoid the danger of electric shock.
24	Ensure that there are no loose or exposed metallic objects inside the case, to avoid the danger of damage, fire and electric shock.
25	Ensure that hands are never used, to avoid damaging the system and electric shock. Always use screw drivers for work inside the system.

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1-1. Product Introduction Product features

1 You can use a basic function of LG network storage such as data storage and share function on Windows, Mac, Linux environment.

2 You can manage the data more safely and efficiently with a secondary back-up of the data through an internal DVD drive.

3 DVD drive can be used to directly copy the data in the disc to LG network storage.

4 You can easily save the contents of the mobile device (USB) or disc (CD/DVD) in LG electronic network storage without stopping by a PC using a back-up button.

※ N2A2 model does not support ODD function.

1-2. Product introduction

Product components and support OS

Thank you for purchasing a LG NETWORK STORAGE.
Please verify that if there are the components are present as follows.

- Network Storage

- Product Warranty

- PC S/W Installer
- Multimedia User Guide

- Quick Installation Guide

- Power supply cord and adaptor

- LAN cable

Pictures or photographs used in the user manual are subject to change in accordance with the components of the model.

- Support OS

LG Network Storage
- Windows XP, Server 2003, Vista, Windows 7
- Mac OS 10.x or higher
- Linux (Fedora, Suse, Ubuntu)

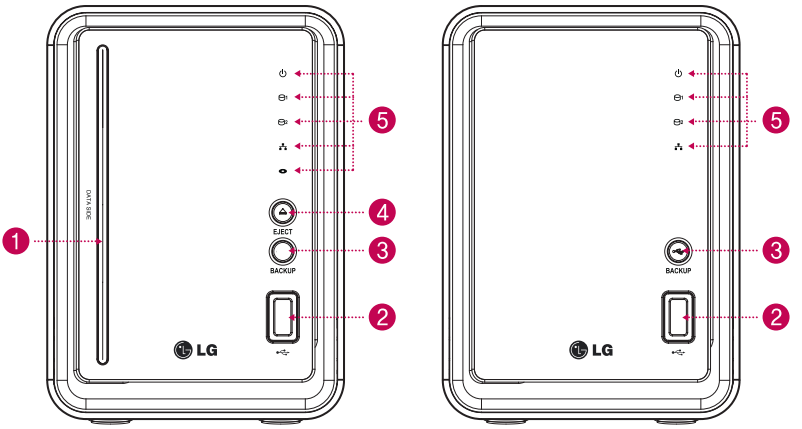
PC S/W

PC S/W	Support OS
NAS Detector	Windows XP, Server 2003, Vista, Mac OS 10.x or higher, Windows 7
NAS Monitor	Windows XP, Server 2003, Vista, Windows 7
Nero BackItUp & Burn	Windows XP(SP3 or higher), Server 2003, Vista, Windows 7
Acrobat Reader	Windows, Mac
Flash Player	Windows, Mac
Installation wizard	Windows XP(SP2 or higher), Vista, Windows 7

1-3. Product introduction Name of the product parts

☞ Please be familiar with names of the parts of the product.

(Front)



N2T2 N2A2

❶ **ODD Slot hole :** This is where you insert the disc.
You should insert the disc having the writing side as a data side.

※ Supporting media are subject to change in accordance with the product.

※ N2T2 model contains a slot-type DVD drive and does not support Blu-ray media / 8cm disc.

❷ **USB port :** USB 2.0 interface

❸ **Back-up button :** A button to back-up data of a disc or USB onto NAS.

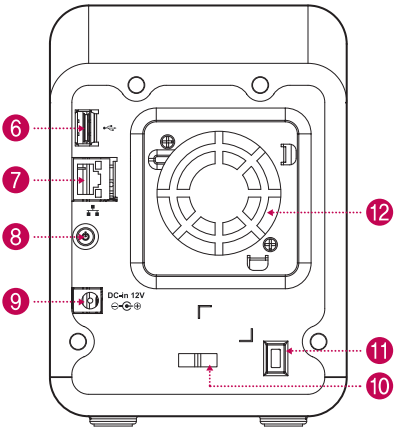
❹ **ODD eject button :** A button to eject a disc

❺ **LED panel (Refer to page 12)**

※ N2A2 model does not support ODD function.

1-3. Product introduction Name of the product parts

(Back)



N2T2 / N2A2

❻ **USB port :** USB 2.0 interface

❼ **LAN port :** This is where you connect a LAN cable.

❽ **Power button :** A button to switch on and off the power supply

❾ **DC port :** This is a port where you connect a power supply adaptor.

❿ **Adaptor cable holder :** This helps to fix an adaptor cable and prevents it from falling out.

⓫ **Kensington Lock :** This is an antitheft lock ring.

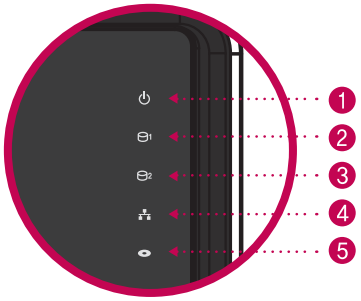
⓬ FAN

※ N2A2 model does not support ODD function.

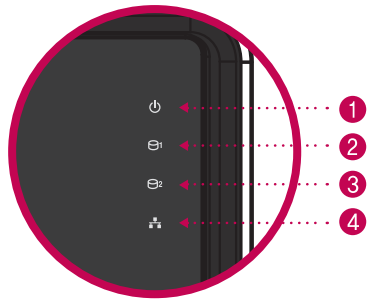
2-1. LED panel and using button LED panel

Please check LED panel.

(Front)



N2T2



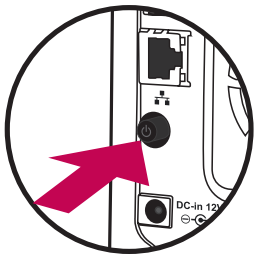
N2A2

❶ **POWER :** This displays states of the power supply.

❷ ❸ **HDD1/2 :** This displays states of action when hard disk reads/writes. It blinks upon the action of reading/writing.

❹ **LAN :** This displays a connection state of a network. It is switched on when it becomes active with network connection and switched off when it becomes inactive.

❺ **ODD :** This displays action states of reading/writing of an optical disc drive, disc recognition and back-up. It is switched on disc recognition and displays states of disc reading/writing including back-up through blinking.



(Back)

- **Switching on/off the power supply (POWER button on the back side)**

Switching on the power supply

When you press POWER button, which is located on the back side, LG Network Storage starts and an alarm sound rings when it becomes available to use.

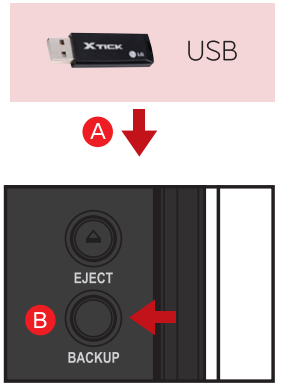
Switching off the power supply

Switching off progress starts when you press the power supply button on the back side until you hear beep sound.

2-2. LED panel and using button USB back-up

☞ You can back-up USB data onto the Network Storage hard disk with operation of a back-up button.

1. Back-up the data of a mobile storage device (USB) to LG Network Storage.



Ⓐ Insert USB onto the Network Storage.

Ⓑ Press the back-up button.

Ⓒ When ODD media (CD/DVD) and USB are simultaneously connected, back-up is progressed for the device, that is recognized at the latest. (Supported by N2T2 model)

Ⓓ Once backup completes, a folder named the name of the storage manufacturer will be created in the service/backup/usb folder, along with a beeping sound. This makes it be distinct from other devices in the future. In addition, a lower folder according to the back-up date is created and the whole content of the USB device is saved in LG Network Storage.

Folder name is automatically created as in the following.

Storage location	Name of the created folder
service/backup/usb	Name of the manufacturer of the storage device, serial number/type of file back-up/dates on which the folder is created

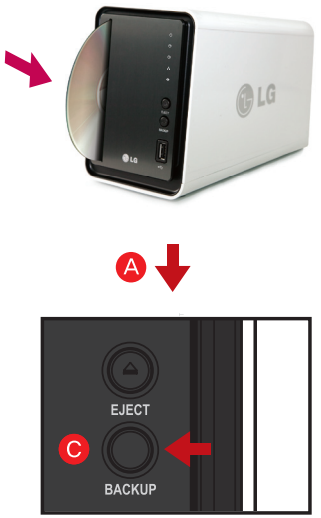
※ In case of a simple back-up when the same storage device is backed up more than several times, all of the data that is backed up at the latest are saved in Last Backup folder. When you back-up more than twice on the same date, serial number is attached at the back of the date. In a folder that is created for the first time, all of the data of an external storage device are saved. In folders created afterwards, added folders and files when compared to the data backed up at the latest are saved.

※ Please refer to 9-2. File back-up service USB back-up set-up for more details.

2-3. LED panel and using button ODD back-up

☞ It provides a function to back-up the data stored within an optical disc such as CD/DVD onto LG Network Storage.

2. Back-up the data of an optical disc to LG Network Storage.



Ⓐ Insert an optical disc that you want to back-up to DVD drive of LG Network Storage.
※ Push it in having the arrow direction as the data writing side as seen in the picture.

Ⓑ Once an optical disc is recognized, alarm sound rings and ODD part of LED panel is switched on.

Ⓒ When you press back-up button, data or image back-up proceeds in accordance with ODD Backup Mode, which is set up on a web.
※ Default is data back-up.

Ⓓ When back-up proceeds, ODD part of LED panel blinks so that you can check the progression.

Ⓔ When the back up in progress is completed, alarm sound rings and simultaneously an optical disc is ejected. And ODD part of LED panel is switched off at this time.

Data back-up
It is a function to back up the content of the disc as original onto LG Network Storage. When you choose the data back-up function, folders are created according to the back-up date and data of the user is backed up below /service/backup/disc-data folder. If you proceed the back-up process more than twice on the same date, a serial number is attached at the back of the date.

Image back-up (iso file)
It is a function to back-up the content of a disc as iso image file form. When back-up is completed, file name is sequentially assigned in accordance with back-up date below /service/backup/disc-image folder and the data of the user are backed-up. When you back-up more than several times on the same date, the number is added at the back of the date according to the back-up order.

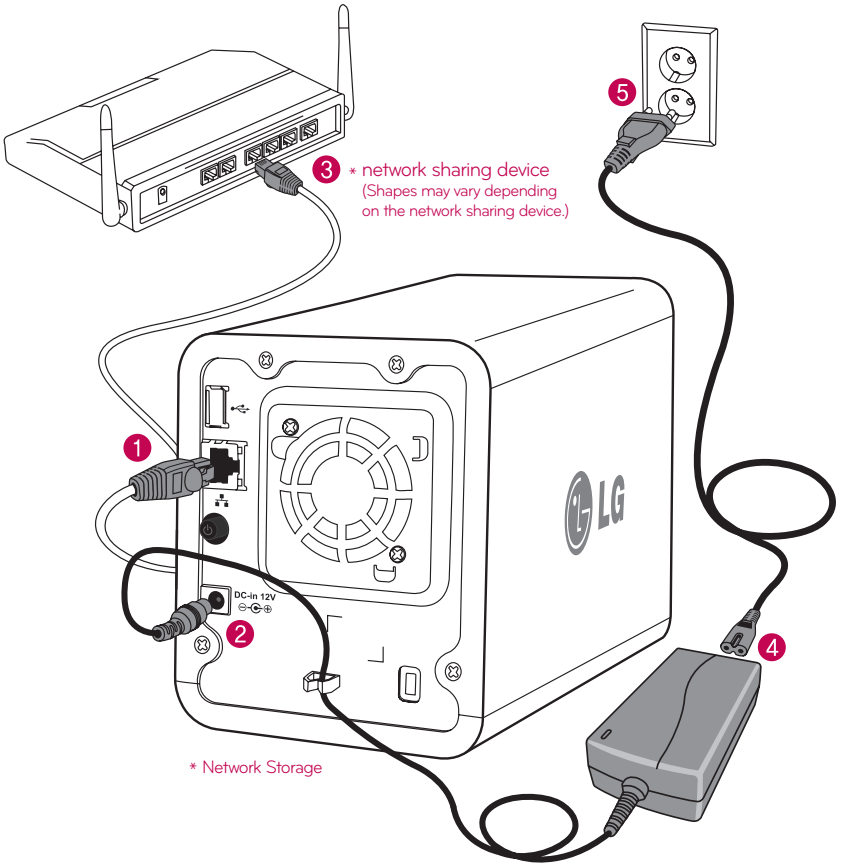
※ N2A2 model does not support ODD function.

3. Product installation Installing Network Storage

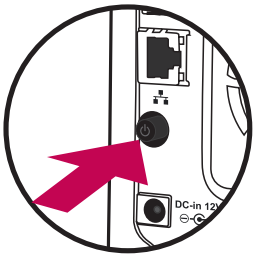
☞ In an environment where there is DHCP server, after connecting Network Storage to IPnetwork sharing device/switch/hub, choose receiving IP automatically, then the network information will be retrieved from DHCP server. In case you use a specific IP address assigned from network IP administrator, you can easily install if you prepare by receiving assignment of IP address, sub-net mask, standard gateway, DNS information.

1. Connect LAN port of Network Storage with LAN port of a network equipment (IP network sharing device / router / hub / switch) using a LAN cable enclosed, or directly connect the LAN port of the PC.

- **When using the network equipment (IP network sharing device/switch/hub) :**
  Connect LG Network Storage to user's PC using hub/switch/router as in the following.



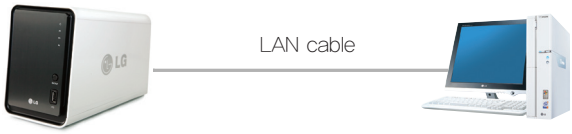
2. After checking the connection of the power supply cable of LG Network Storage, press the power button at the back and start LG Network Storage.



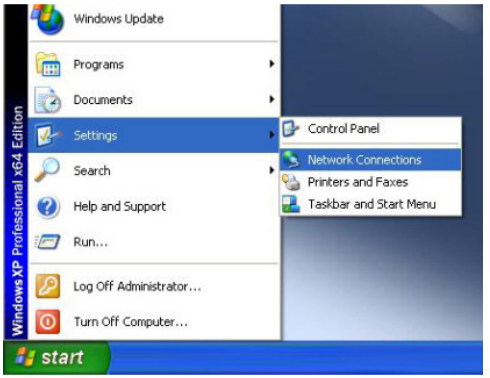
When you turn on the power at the back of Network Storage, booting is completed with a cheerful alarm sound after approximately 40 seconds~1minute.
(On normal connection state, a shape of network LED is turned on.)

- **When connecting with PC directly without network equipment :**

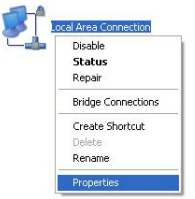
Ⓐ Please connect LG Network Storage directly to PC using a LAN cable.



Network Storage Desktop PC

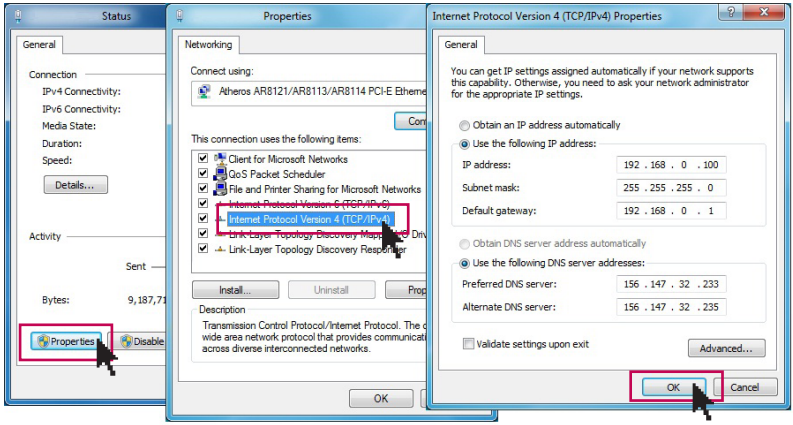


Ⓑ Start -> Settings -> Network connection -> click on the right button of the on Local Area Connection -> Properties

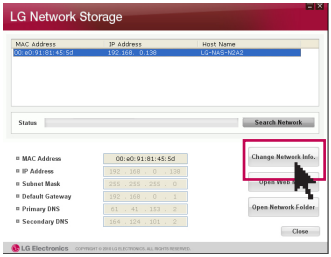


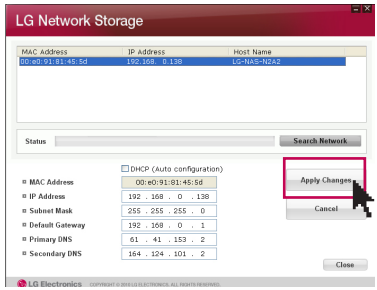
3. Product installation Installing Network Storage

Ⓒ Please change the IP of the PC as follows if the window of local area connection state popsup. (Example)
properties -> When you double-click internet protocol Version4 (TCP/IPv4), a window that is able to change the IP of the PC, and then it makes the change.



Ⓓ Please change the IP of NAS using a NAS Detector.
NAS Detector -> Change Network Info -> Click on 'apply change' after changing (5-1. Refer to Using Network Storage Using NAS Detector)





Ⓔ Click OK after entering password.

※ When you connect Network Storage directly with PC using a LAN cable, wire internet of the PC is not connected

4-1. Program installation

Features and support OS environment

☞ "LG Network Storage PC Software Installer" CD that is provided on purchasing LG Network Storage provides programs as in the following.

1. NAS Detector

"NAS Detector" provides a function of easily and quickly finding LG Network Storage present on the user's network.

2. NAS Monitor

"NAS Monitor" provides a function of checking the state of LG Network Storage in real time as well as a simple control.

3. Nero backitup&burn

4. LG NAS Installation Wizzard

Program	Supporting operating system		
	Windows	Mac	Linux
Acrobat Reader	○	○	—
Flash Player	○	○	—
NAS Detector	○	○	—
NAS Monitor	○	—	—
Nero backitup&burn	○	—	—
LG NAS Installation Wizard	○	—	—

※ Program you can install varies in accordance with the user's OS environment.

4-2. Program installation NAS Detector installation

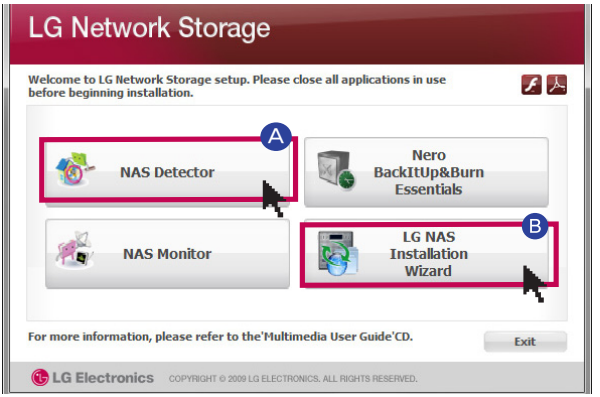
☞ The name of Network Storage is 'LG Network Storage' on web UI.

1. Insert "LG Network Storage PC Software Installer"
CD that is provided with the system into an optical drive (CD/DVD drive) of the user's PC.

⚠ Cautions

※ You should not put in'Network Storage'.

2. A pop-up as below appears due to automatic operation.

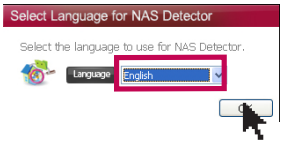


Ⓐ Install 'NAS Detector' on the user's PC by clicking 'NAS Detector'.

- If you want to install NAS Monitor, Nero BackItUp & Burn program, click on NAS Monitor, Nero BackItUp & Burn.
- Click on the icon if a flash player is not installed on the PC

Ⓑ LG NAS Install Wizard is a program that helps you to install NAS and set a complicated network easily.(DDNS)

3. Upon installation completion, choose a language you will use along with a creatioin of short-cut icon.

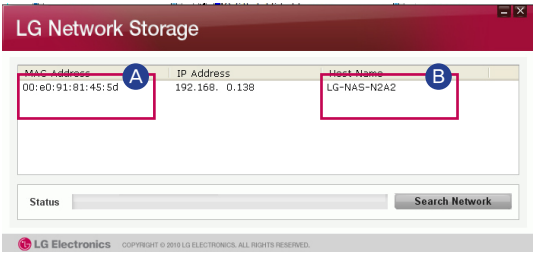


5-1. Using Network Storage Using NAS Detectorlation

☞ This explains about how to use NAS Detector and NAS Monitor.
About detailed explanation in regard to using bundle program, please refer to manual within the program itself after program installation. (Nero backitup&burn)

1. After checking there has been a correct network connection of the PC, operate the program by double-clicking on a 'NAS Detector' icon created on a desktop.

2. 'NAS Detector' automatically finds LG Network Storage, which is connected to the user's network currently. Once the search is completed, it shows resulted 'MAC address', 'IP address', 'Host name' of LG Network Storage in order.

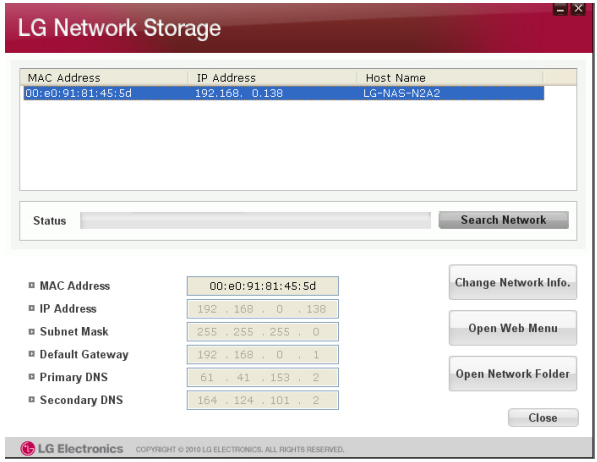


Ⓐ **MAC address :** It is a unique number of each product of LG Network Storage, and displayed on the label at the back of a mainframe.

Ⓑ **Host name :** LG-NAS-N2A2

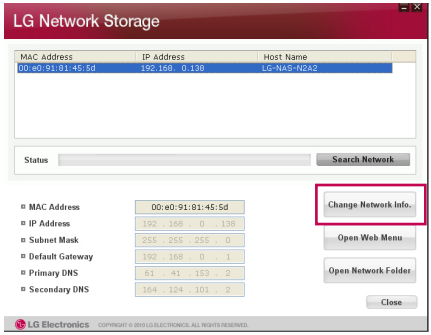
※ In case you cannot find LG Network Storage you want to connect, search once more by clicking on 'Search network' button. If you cannot search with 'NAS Detector', please check the state of network connection. As for a method to set-up an IP address manually, please refer to 7-1. System set-up [Network set-up].

3. When you choose LG Network Storage information that is searched, basic network information of Network Storage such as sub-net mask, standard gateway, DNS etc. and 'Network information change', 'Open Web menu', 'Open Network folder' buttons are displayed.



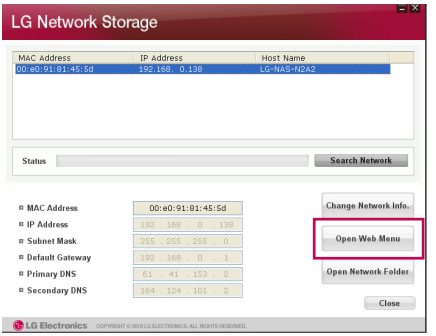
※ For"NAS Detector" program to be normally operated, the user's PC should be connected to the same IP network sharing device / switch / hub as LG Network Storage.

4. You can change relevant information such as IP address etc. with a click on 'Change Network Info' button.

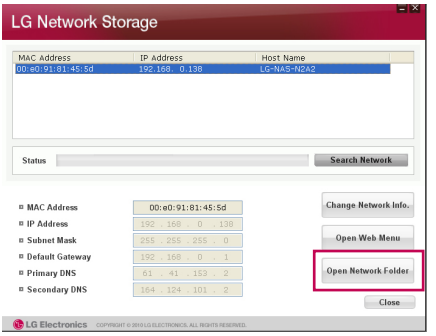


※ In case of an environment of IP network sharing device or a presence of DHCP server on the network, option for the choice of DHCP appears. If you do not have specially assigned IP address, you can either use the IP address "NAS Detector" found or choose DHCP option and receive an automatic assignment of the IP address.

5. You can access a web menu of LG Network Storage when you click on 'Open Web Menu'.



6. You can access LG Network Storage network folder when you click on 'Open Network Folder'.



7. When you click on 'Open Web Menu' or 'Open Network Folder', you can choose 'yes' on a message window that pops up and add a short-cut icon on the desktop. Afterwards, you can have an easier access to Network Storage web menu or network folder using the short-cut icon.

NAS web menu short-cut

NAS network folder short-cut

5-2. Using Network Storage Using web menu

☞ On web menu, you can manage LG Network Storage use including setting up a network information of LG Network Storage, share management, service management. You can also set up data storage using DVD drive, back-up of mobile device on this.

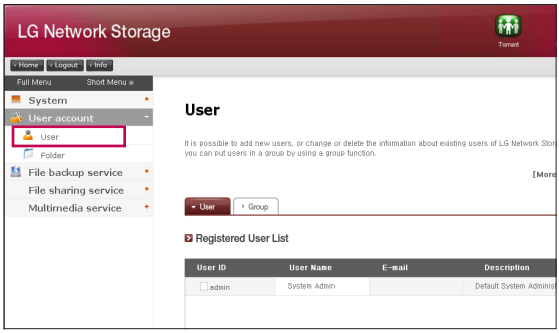
Ⓐ Click on 'open web menu'

Ⓑ Choose on a pop-up window of 'web menu short-cut'.

Ⓒ Select the language you want

※ Due to security reason, it is logged out automatically in case you do not perform any action for 20 minutes after logging in.

Ⓓ Logging in by entering an user ID, 'admin', and a password, 'admin'.



※ You can change a set-up of Network Storage.

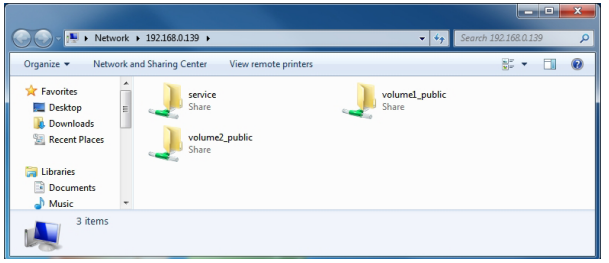
※ Please change the password for security.
(web menu -> administrator account -> user -> change password after clicking on 'admin'

5-3. Using Network Storage Using network folder

☞ It is possible to share and store files through Network Storage as other hard disk connected to PC.

1. Double-click on a short-cut icon of LG Network Storage network folder.

2. DVD drive of LG Network Storage, 'service' / 'volume1_public' / 'volume2_public' are displayed.



3. access hard disk of LG Network Storage, double-click on ' volume1_public' or ' 'volume2_public' folder.

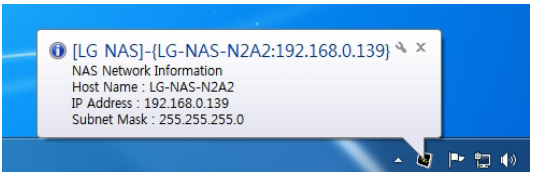
※ If the content of the service of LG Network Storage is not properly displayed, please refresh.

※ Initial ID of LG Network Storage is admin and a password is admin.

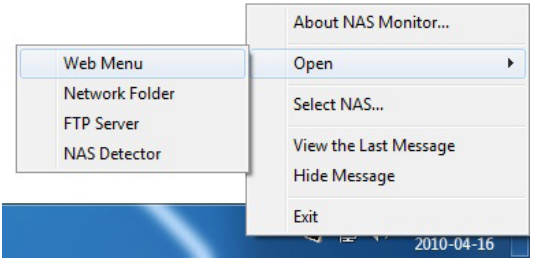
※ volume1_public, volume2_public, service folder shows provided that the volume is adequately organized.

5-4. Using Network Storage Using NAS Monitor

☞ NAS Monitor provides several functions for users to easily use LG Network Storage.
For example, when opening a network folder or trying to access web page, one can perform the action easily by clicking on a menu of NAS monitor.

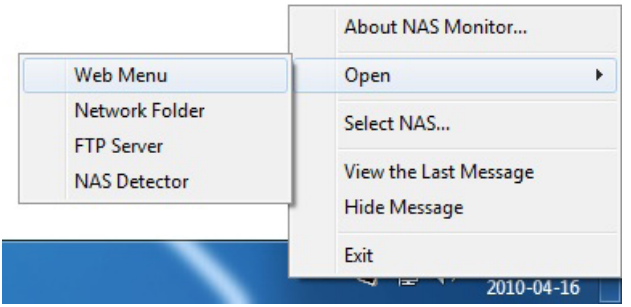


Ⓐ Basically NAS monitor brings in IP address information while automatically communicating with LG Network Storage. Therefore even when the IP address is changed, the user is able to access open network folder or web without a specific set-up.



Ⓑ When NAS monitor is activated, it is operated as a form of tray icon of the window, and you can check this on the bottom of the right side of the screen. The screen below is the menu screen, which appears when you click on the right button of the mouse.

5-4. Using Network Storage Using NAS Monitor



– Web menu
  It is a menu used to access a web page.

– Network Folder
  It is used when opening network folder. When you double-click on an icon with a left button of the mouse, open network folder operates basically.

– FTP server
  It is used to connect to FTP server.

– NAS Detector
  It is a menu used to operate NAS detector program, which is used to change IP address of LG Network Storage. In order to use this menu, NAS detector needs to be installed in advance.

– Select NAS
  When one LG Network Storage is being used, IP address information of NAS monitor is automatically set up. However when several LG Network Storage are being used, many messages may be transferred to NAS monitor, and it cannot be known which LG Network Storage order is sent on menu selection. Consequently it helps to assign one LG Network Storage and makes you take care of the information of LG Network Storage you want.

– view the Las Message
  It shows message sent at the latest.

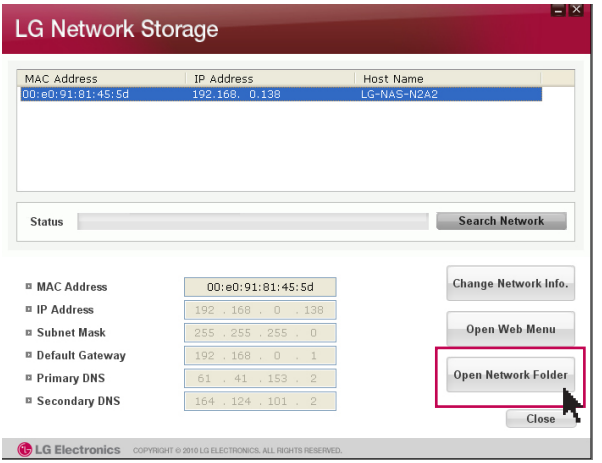
– Hide Message
  it does not show message being sent from LG Network Storage.

6-1. Using network Connecting in Windows OS

☞ File share service is the most important function of LG Network Storage. In this chapter, a method to use LG Network Storage as a network drive for different OS such as Windows, Mac, Linux is explained.

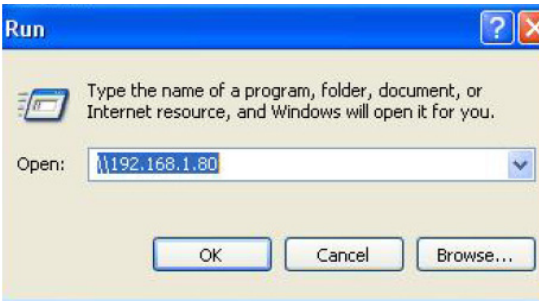
1. PC applied program use

After installing the NAS detector program of LG Network Storage PC Software Installer disc, run the program and click on "Open Network Folder" button. Then you can connect to the share folder of LG Network Storage.



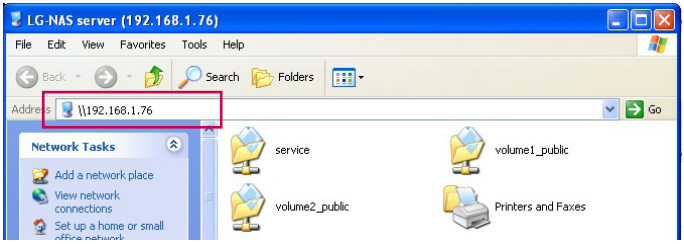
2. Use a 'run' function of Windows OS

When you click on "run" on the start menu of Windows OS and enter '\\IPaddress', then you can connect to LG Network Storage. Please refer to 5-1. Using Network Storage [Using NAS Detector] if you do not know IP address.



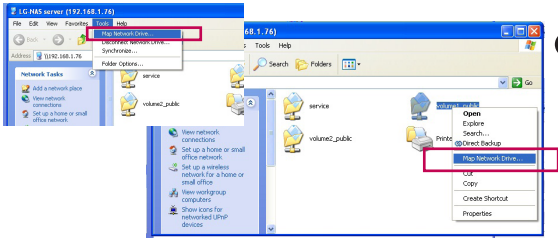
3. Using a function of Windows file share

Open the search engine of Windows, and enter '\\IPaddress' in the address window.
You can access to the server after logging in. Please refer to 5-1. Using Network Storage [Using NAS Detector] if you do not know IP address.

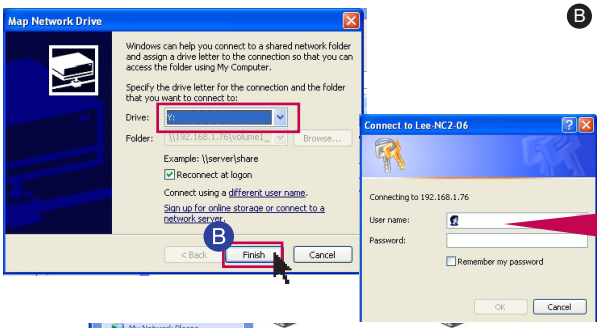


Tip Set-up as a network drive after Tip server connection.

※ If you set up as a network drive, you can connect to LG Network Storage more conveniently next time.

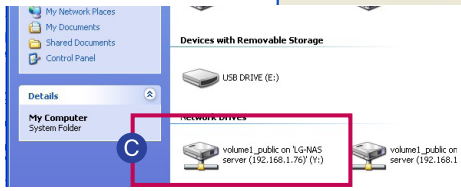


Ⓐ "tool" -> network drive connection" or click on network drive using the right button of the mouse.



Ⓑ After assigning drive letter and connection folder on the 'network drive connection' window, click on 'finish'.

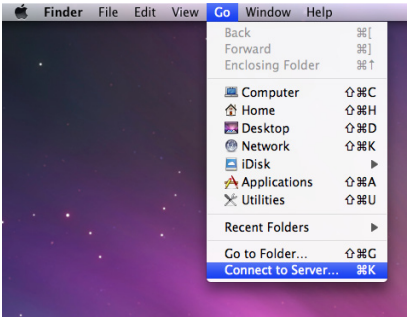
Logging in by entering an user ID, 'admin', and a password, 'admin'.



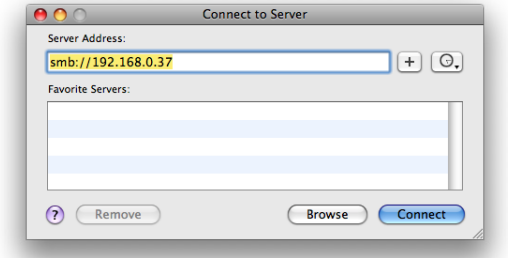
Ⓒ After creating the drive in my computer, it can be simultaneously used with the hard disk.

6-2. Using network Connecting in MAC OS

☞ You can add LG Network Storage share folder to Mac server list, and manually add the pertinent folder to search engine.

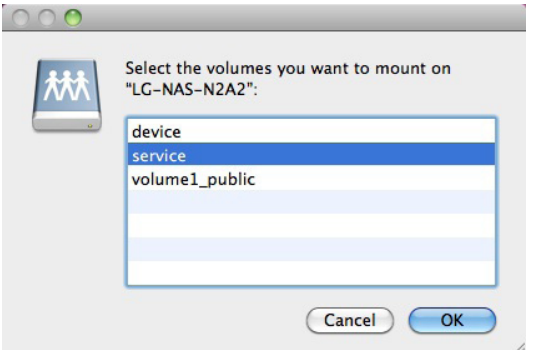


Ⓐ After clicking on "Go" on the menu bar, select "connect to server".

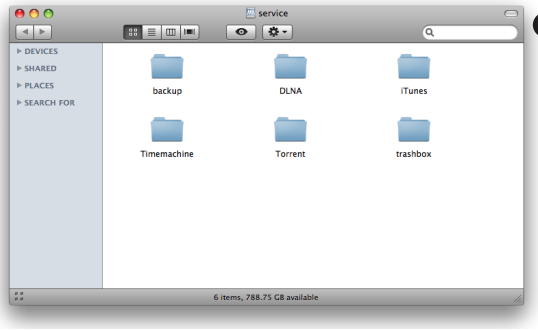


Ⓑ Enter the IP address of LG Network Storage as a format of {smb://LG Network Storage IPaddress}in a 'server address' field, and then click on a 'connect' button. Please refer to 5-1. Using Network Storage [Using NAS Detector] if you do not know the IP address of LG Network Storage.

Ⓒ Enter the log in ID and password, and then click on 'allow' button. On initial release, it is setup as ID: admin, password: admin. It is recommended to change the password by connecting to a web administrator page later on for the security reason.



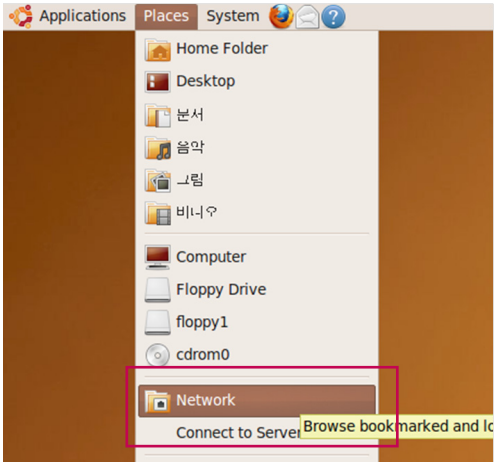
D Select the volume (example: / device / service / volume1_public) you will use in the folder list of LG Network Storage, and click on "OK" button.



E The pertinent share folder opens and you can see the content of the folder.

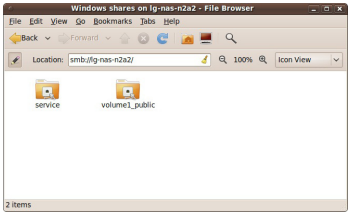
6-3. Using network Connecting in Linux OS

☞ LG Network Storage supports Linux system through SMB service on top of Windows and MAC OS. A connecting method in Linux system is as follows. It is explained with ubuntu as a standard here.



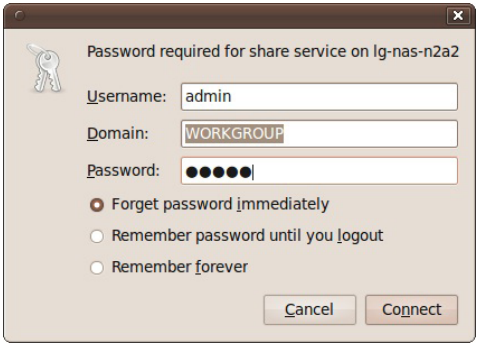
Ⓐ After clicking on 'Place' on the menu bar, select 'Network

Ⓑ When you click on 'network', LG Network Storage is displayed. Please select LG Network Storage name to connect here.

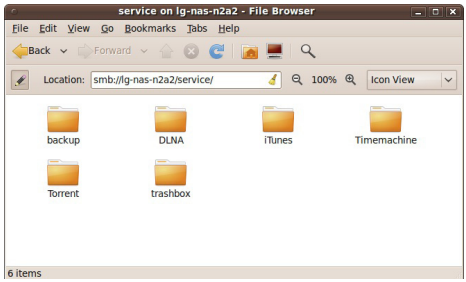


Ⓒ If you select LG Network Storage, the folder list of LG Network Storage is displayed. Please select a volume (example: service / volume1_public) to use.

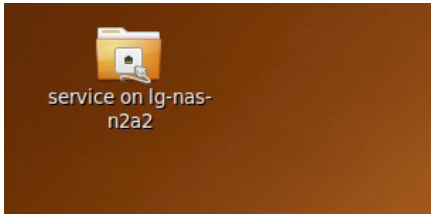
6-3. Using network Connecting in Linux OS



D You can connect to LG Network Storage when you enter the ID and password. It is set up as ID: admin, password: admin on initial release. It is recommended to change the password after connecting to the web administrator page later on for the security reason.



E After logging in, LG Network Storage share folder is displayed.

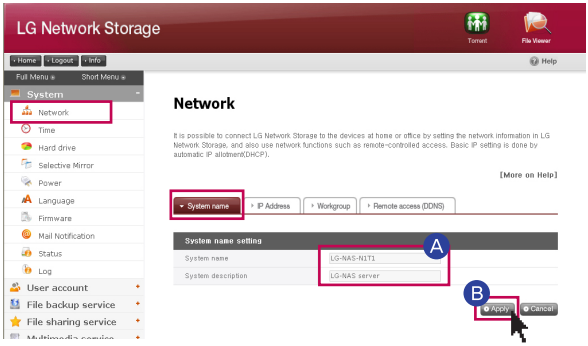


F After setting up of the network, marked icon is created on the desktop.

7-1. System set-up Network set-up

In a 'network set-up' menu, you make an important configuration to connect LG Network Storage to the network. Please be cautious in setting up as a fault generated in set-up may create a problem in connection.

1. System name



A Click on 'system name' tab at the 'network'
Enter the system name of LG Network Storage. For system name, you can use a minimum of 3 letters to a maximum of 12 letters, and combine alphabets (A-Z or a-z),numbers (0-9), hyphen(-) as you want, however numbers or hyphen cannot be placed at the very front. Special characters cannot be used.

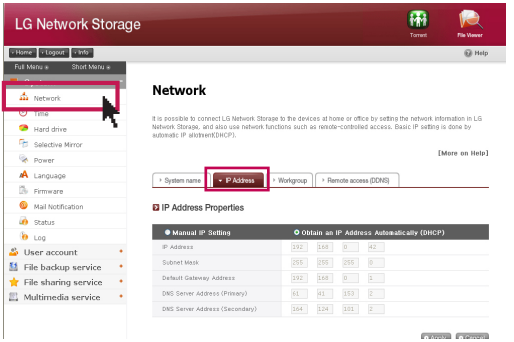
Name that can be used : LG-NAS, LGNAS-123
Name that can not be used : LG_NAS, -LGNAS, 123-LG, LG-#, LG/N

Enter the explanation of the system. For the explanation of the system, you can use a maximum of 24 letters with a combination of alphabet, numbers, under bar (_), hyphen (-), space. This set-up only affects a client.

B Click on 'Apply' button .

2. IP address

It assigns a IP address property of the network interface. You need to be careful in setting up since this might give a limitation to the connection of the system.



Ⓐ **When there is IP address you wish to use :** Select 'manual IP setting' when you have received an assigned IP address from a network administrator, or there is an IP address you wish to use. And enter IP address, sub-net mask, standard gateway, DNS address as in the following.

– IP address: enter IP address you wish to use

– Sub-net mask: Enter a sub-net mask appropriate for a current network environment.

– Default gateway address: It assigns a route to go outside
When there is no standard gateway present on the network, enter the IP address.

– DNS server address(Primary): DNS server takes care of the conversion between domain name and IP address. If An adequate DNS is not set up, email, DDNS and domain function cannot operate normally.

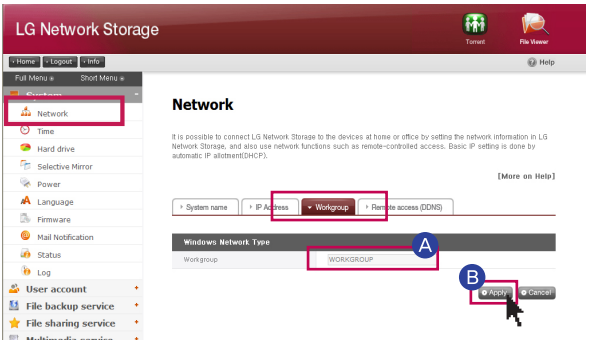
– DNS server address(Secondary): enter the address of assistant DNS server.

Ⓑ **If you wish to be assigned IP address automatically :** Select 'Obtain an IP address automatically(DHCP)' if you want to receive an assignment of IP address automatically. In case of a presence of DHCP server (or internet IP network sharing device) within the network, you can use this option. When you activate a DHCP option, a connection with a web menu is disconnected. Therefore please check the new IP address through a NAS Detector program. Because DHCP actively renews its IP address on a regular basis, this may create an unintentional IP address change. Hence you need to be careful use DHCP set-up.

※ If you set up an automatic assignment of IP address but there is no DHCP server within the network, you will receive an automatic assignment of a link local address such as 169.254.XXX.XXX . It is available when you directly connect PC with the network cable, and in this case IP address set-up of the PC should be selected as 'Obtain an IP address automatically ' as well.

3. Workgroup

Ⓐ Set up a name of the workgroup Windows network supports.
You can access LG Network Storage share folder on Windows through this.

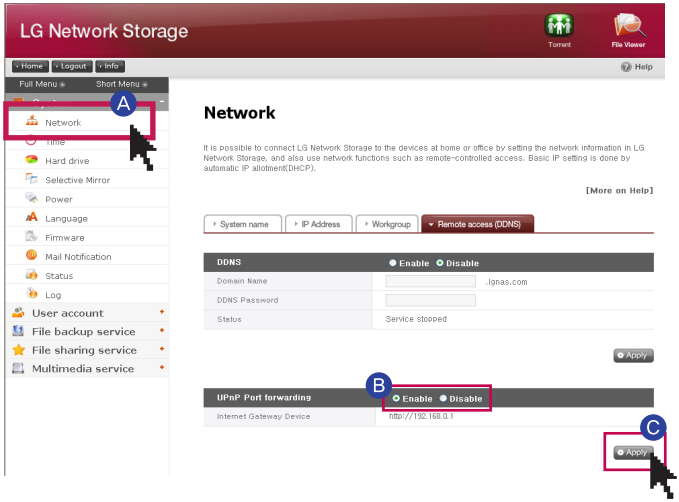


Ⓑ Click on `Apply` button

7-2. System set-up Remote access

1. [UPnP]

It is possible that LG Network Storage directly receives the request being sent to network sharing device connected LG Network Storage using UPnP port forwarding. When connecting LG Network Storage from the outside via DDNS, it should be set up in a way that the request being sent to the network sharing device is transferred to LG Network Storage by changing the set-up of network sharing device. You can make the network sharing device perform a transferring action without network sharing device set-up through this function.



Ⓐ Click on Network menu -> move to Remote access (DDNS) tab

Ⓑ When the address of the network sharing device is displayed normally, activation of the Port forwarding function of the network sharing device is displayed. Select UpnP port forwarding 'Enable'.

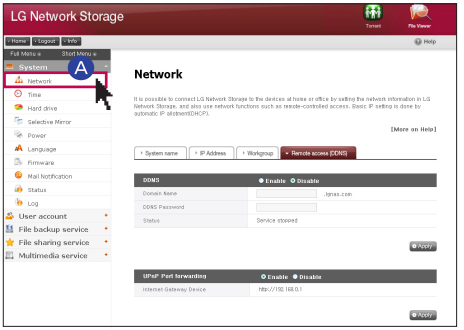
Ⓒ Click on `Apply` button

※ It might not perform an adequate action when the network sharing device does not support UPnP port forwarding or the function is inactivated.

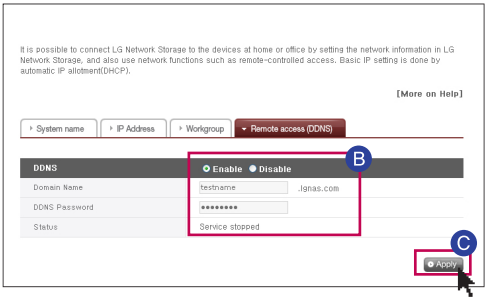
7-2. System set-up Remote access

2.DDNS (Dynamic DNS)

You are able to connect LG Network Storage with the domain name from the outside using DDNS..(example : http://myname.lgnas.com , or ftp://myname.lgnas.com) In case of using a fixed IP, it is possible to connect to the server from the internet by remembering IP address. However in a changing IP environment where IP changes at certain time, DDNS provides a convenient connection environment. It performs monitoring of a changing IP address real-time, and does mapping in domain name. Consequently it is not necessary to memorize IP address changing continuously, and you will have a fixed address.



Ⓐ Move to Remote access (DDNS) tab after clicking Network menu.



Ⓑ After selecting DDNS 'Enable' enter the name of domain and password you want.

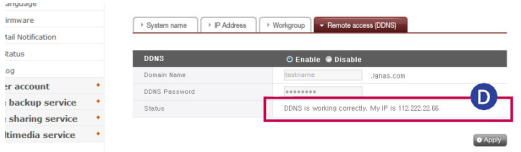
Ⓒ Click on 'apply' button.

⚠ Cautions

※ Please enter (only alphabets and numbers can be used) without special characters and space when registration of the domain name.

※ After domain name registration, if you select 'not use', a previous domain is deleted. Therefore you can register and use the pertinent domain name in other Network Storage.

※ Please be cautious not to lose password.

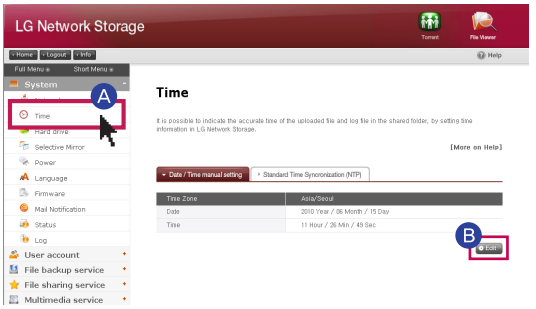


Ⓓ 'DDNS is working corrctly' on a completion of DDNS set-up. Phrase and IP address set-up

7-3. System set-up Date & time set-up

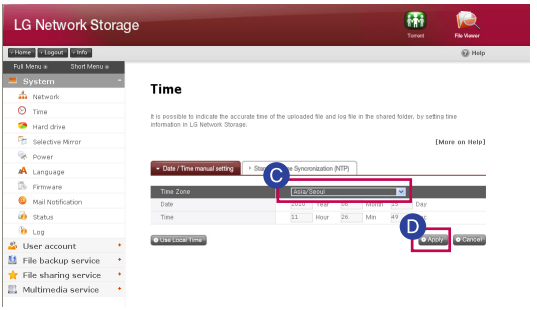
☞ It sets up the time of the system. It is necessary to accurately set up the current time for the correct time display of the file uploaded within the share folder and the log file.

1. Date & time set-up



Ⓐ If you want to change date and time, click on `Time` button

Ⓑ Click on 'Edit' button



Ⓒ You can assign the region in which LG Network Storage is currently installed using 'time zone'. You should enter a correct value as a correct time zone set-up may have an impact on NTP action.

Ⓓ Click 'Apply' button

※ You can bring in the current time of my computer using an 'Use Local Time' button.

2. NTP set-up

Network Time Protocol (NTP) performs a regular synchronization of the system time by obtaining the correct time from the time server from the outside. It is recommended to activate this for the correct time to be maintained. If you use a standard NTP server, time is obtained through pool.ntp.org server.

7-4. System set-up Hard drive set-up

This chapter gives the information and explains the function of the data volume the user stores. In order for data to be saved on to LG Network Storage, volume must be set up. If the volume is not configured, you cannot connect to the network drive nor use functions such as backing up using USB or an optical disk.
This product provides the following 5 volume configuration methods for the user's requirement

- RAID 0(Stripping)
- RAID 1(Mirroring) for important data
- linear(JBOD) volume
- RAID 1(Mirroring) + RAID 0(Stripping)
- Individual disks(disk1,disk2)

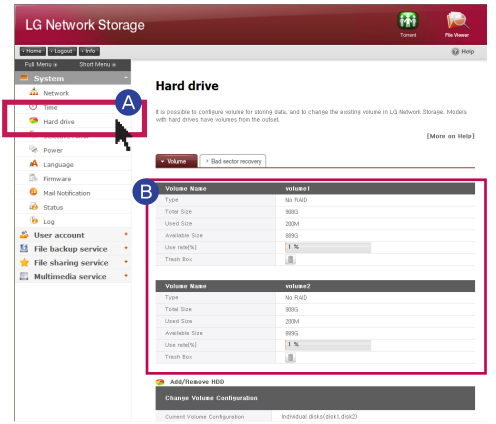
※ When you first purchase the product, the volume is already organized. Therefore please use this menu only when you wish to change the volume organization set-up.

※ When organizing a volume, certain section of the hard disk is assigned as a system section of LG Network Storage. Consequently a capacity of the volume after the volume organization appears smaller than the capacity of the hard disk.

1. Volume format

To configure the volume, follow the below procedures. Configuration of the volume will remove all existing user's data in the hard disk and will not be recovered.

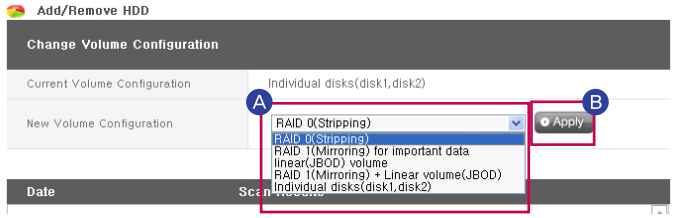
※ In the process of volume configuration, the web menu and the buttons in the front will not be available.



A Go to System -> Hard drive -> Volume tab

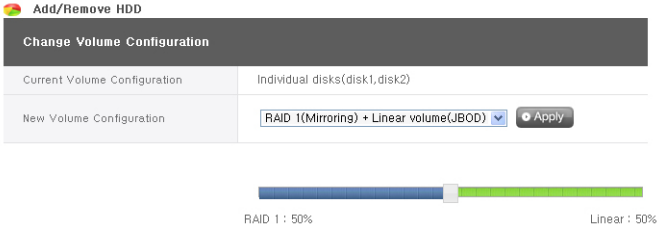
B The name of the configured volume and detailed information will appear. Detailed information will not appear if volume is not configured.

7-4. System set-up Hard drive set-up



Ⓐ There are 5 menus for new volume configuration, including "RAID 0(stripping)", "RAID 1(Mirroring) for important data", "Linear Volume(JBOB)" and "Individual disk(Disk 1, Disk 2)".

Ⓑ Select desired configuration and click "Apply".



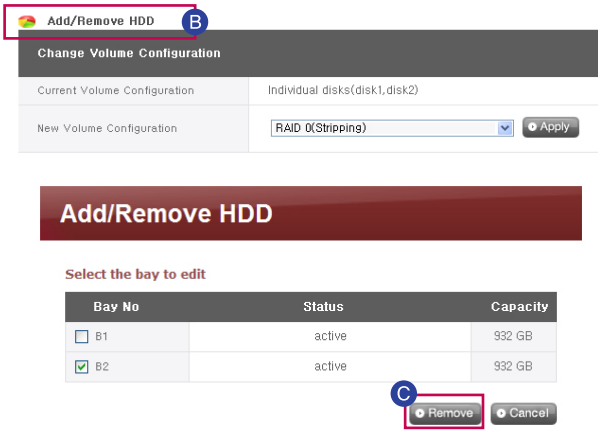
※ RAID 1 (mirroring) + linear (JBOD) selection activates the slide bar below for size selection. Move the slide bar to determine the size and press the "apply" button.

※ If either "RAID 1 (mirroring)" or "RAID 1 (mirroring) + linear (JBOD)" is selected, the synchronization progress for the RAID 1 portion may be viewed on the web screen.

2. Remove disk

Forced removal of the hard disk without following the remove disk functions provided in this screen may cause future complications with system performance and loss of user's important data. Therefore, it is strongly recommended that user uses the remove disk button on the web when removing hard disks.

In the case that "single disks" is being used, existing disks may be removed by following the below procedures.



A In the web, log in and open system -> Hard drive

B Press the "add/remove disk" button above the "change volume configuration".

C Check the disk to be removed and push the "remove" button.

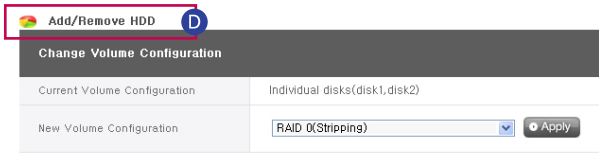
3. Add disk

New disks may be added by following the below procedures.

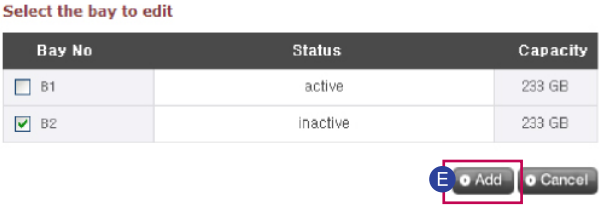
A Press the shutdown button in the web, system -> power -> shutdown.

B Insert the second disk in the LG Network Storage and turn the power on.

C In the web, log in and open system -> Hard drive



D Press the "add/remove disk" button above the "change volume configuration".



E Check the second disk inserted and press the "add" button.

4. empty trashbox

If you delete file or folder while working in the network drive, trashbox is created and deleted files are temporarily moved here. If you wish to restore the deleted data, you can find the file or folder you wish to restore from the trashbox and move it to the location you want. Because the trashbox is created at the every uppermost folder, if there have been a lot of user folders created, the same number of the trashbox is created. In this case, if you need to empty all the trashboxes due to insufficient capacity of the hard disk, you can empty the whole contents of the trashbox by clicking on a trashbox icon on a volume web screen.

※ You can select the trashbox function at "administrator account" -> "folder" menu for the usage of each folder.

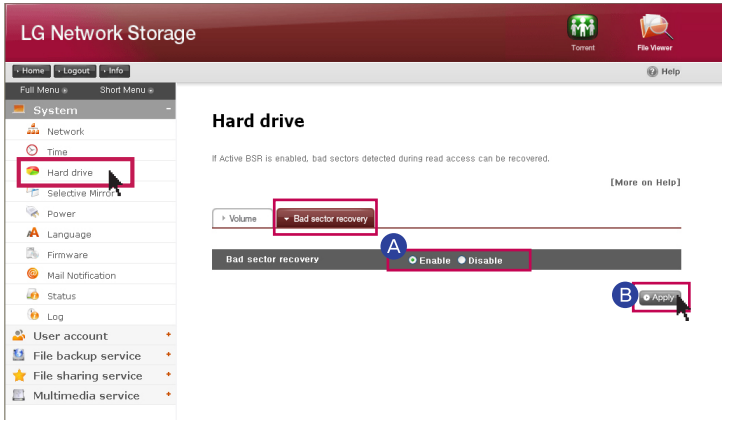
5. HDD Scan

A Click on 'HDD Scan' to start scanning.

B It will scan the hard disk's URE (Unrecoverable read error).

7-5. System set-up Bad sector recovery(Active BSR)

If you activate Active BSR (Bad Sector Recovery), it tries to restore the pertinent bad sector when the bad sector was detected while the user is reading the content of the hard disk. In general hard disk, bad sector can be generated due to careless handing or power failure. You cannot restore the file as the original even when the pertinent bad sector is restored by Active BSR as the file containing the bad sector is already in a state of being broken.



1. Bad sector recovery

Ⓐ Enable : it activates a function of Active BSR.
Disable : it stops a function of Active BSR. (default)

Ⓑ Click on 'Apply' button

For your information:

– Even if you use the Active BSR function, it does not affect the capability of the hard disk.

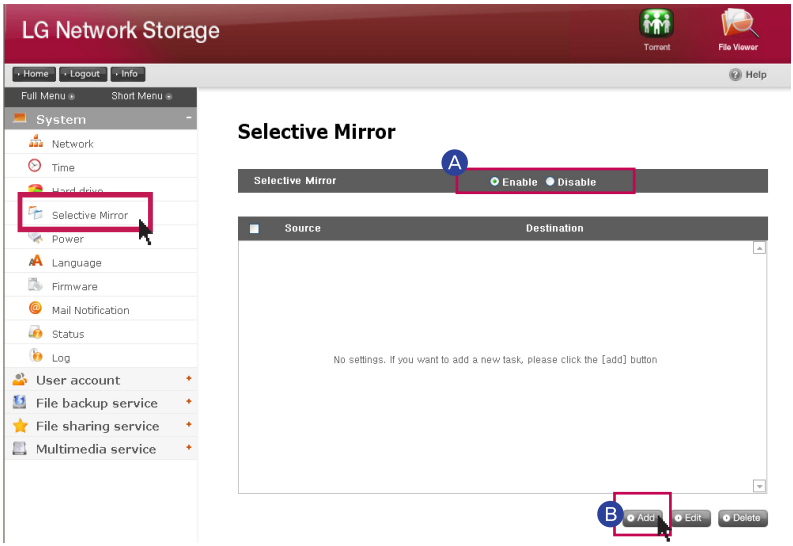
– Physical bad sector/Logical bad sector
There are logical bad sector physical bad sector in bad sectors of the hard disk.
physical bad sector bad sector of the hard disk is generated due to defect of the hard disk itself, deterioration, shock etc. When the physical bad sector is generated, it is better to replace the hard disk.
logical bad sector bad sector of the hard disk is when a faulty is generated in the status information of the pertinent sector, and it can be restored through a separate operation.

– Active BSR cannot restore physical bad sector. If the physical bad sector is detected, leave it on the system log and quit more of an attempt of restoration.

7-6. Selective Mirror Selective data protection for folders

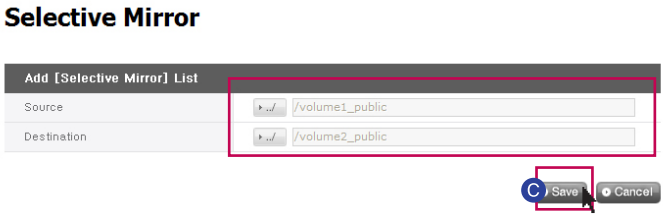
☞ The Selective Mirror function automatically generates copies of certain folders, which allows data recovery even after the loss of source data. If SMB (Samba) and FTB is used to store data in the LG Network Storage and a change incurs in the source folder, the same change will apply to the destination folder and the source folder will be double protected.

1. Add Selective Mirror List



Ⓐ Choose Selective Mirror activation.

Ⓑ Pressing the add button will move the screen to add a new list.

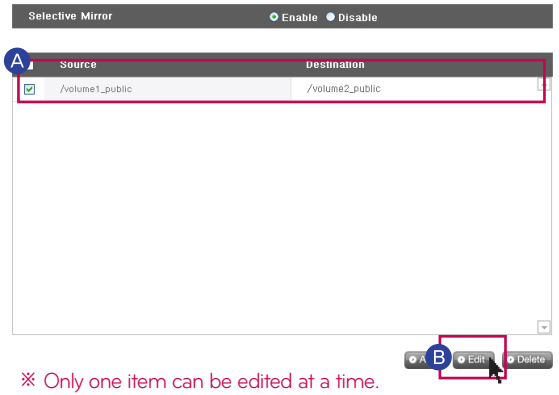


Ⓒ Under "source path", select the folder to be backed up and under "destination path" select the folder that will save the back-up data. Once the save button is pushed, a new list will have been added.

7-6. Selective Mirror Selective data protection for folders

2. Edit Selective Mirror List

Selective Mirror



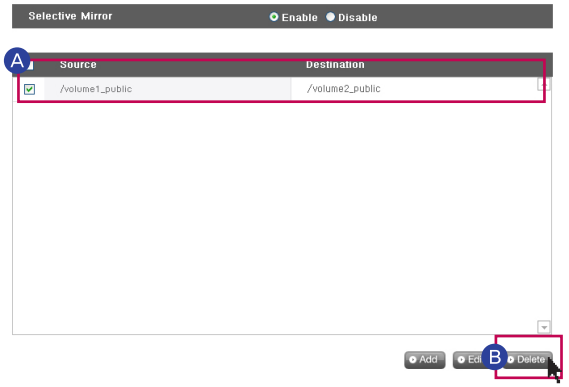
※ Only one item can be edited at a time.

Ⓐ Checkbox the item to be edited and press the 'edit' button.

Ⓑ Edit the "source path" and the "destination path" and press "OK" to confirm the edited set-up.

3. Edit Selective Mirror List

Selective Mirror



※ More than one item at a time can be deleted.

Ⓐ Checkbox the item to be deleted.

Ⓑ Press the "delete" button to confirm the deleted set-up.

※ To maximize the effects of Selective Mirror, it is recommended to set up different volumes for the source folder and the destination folder.

※ Conditions
- The source folder and the destination folder cannot be the same folder.
- One source folder may have up to 4 destination folders.
- A folder designated as a source folder cannot be designated as a destination folder in another setting.
- A subfolder of a source folder cannot be designated a destination folder.
- A folder designated as a destination folder cannot be designated as a source folder in another setting.

7-7. System set-up Power supply management

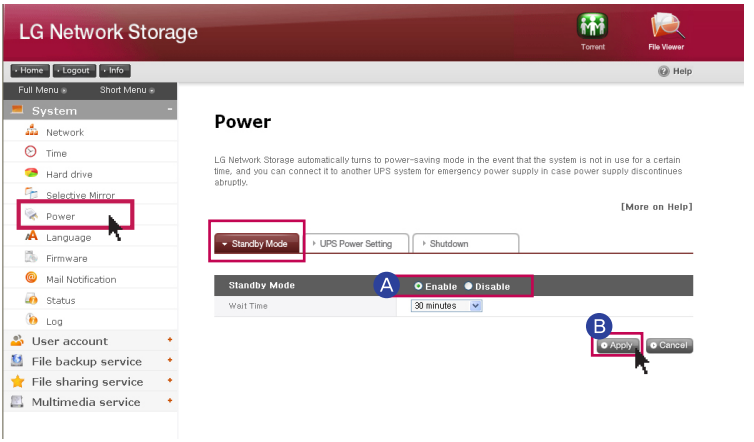
☞ You can manage all of the set up related to the power supply of LG Network Storage (stand-by function, emergency power, system shutdown).

1. Set-up stand by function

It is a function to minimize the consuming electricity by converting all of the hard disks of LG Network Storage to be in stand-by mode when there is no data transfer of LG Network Storage for a certain time period. If you read or write the data of LG Network Storage on stand-by mode, the hard disk of LG Network Storage becomes activated and you can operate it normally after 3-15 seconds.

※ It is recommended to set up a stand-by mode if you are often away or do not use Network Storage for a long time.

Ⓐ If you want to set up stand-by mode after clicking on the start menu, select 'Enable', and if you want to cancel, select 'Disable'. If you select 'Enable', please proceed to the next step

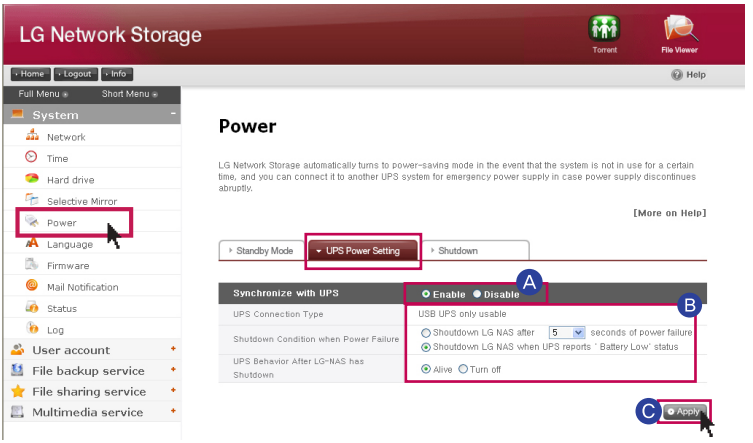


Ⓑ Click on 'Apply' button after setting up stand by time you want.

※ When there is no data transfer of LG Network Storage for an assigned period of time, it converts to power saving mode. You can set up the time at an interval of 30/60/120 minutes.

2. Setting up emergency power

It is a function to efficiently use the external UPS connected for the purpose of protection from a sudden power supply shut down. Please set up an action of UPS when you connect the external UPS to LG Network Storage.



Ⓐ If you wish to set me emergency power, select 'Enable', and if you want to cancel it, select 'Disable'. In case of selecting 'Enable', please proceed to the next step.

※ LG Network Storage supports USB UPS affiliated with APC only.

Ⓑ Select as to whether you will shut down LG Network Storage after an assigned period of time, or you will shut down LG Network Stor age depending on the power state of the UPS.

※ When you set up so that LG Network Storage is shut down depending on the power state of the UPS, the time taken for the shut down may vary in accordance with the UPS type.

Set up the power maintenance of the UPS in case of shutting down of LG Network Storage due to a sudden power shut down.

※ If there is another device connected to the UPS, please do not turn off the power of the UPS

Ⓒ Press an 'apply' button and apply the set-up value to LG Network Storage.

3. shutdown

※Please refer to 14. Network storage management and self-diagnosis function for more details.

It is a function to shut down/restart the LG Network Storage on the web without directly going to LG Network Storage.

Ⓐ **Restart :** It ends all of the actions in progress, and restarts LG Network Storage.

Ⓑ **S hutdown :** It ends all of the processes in progress, and shut down LG Network Storage.

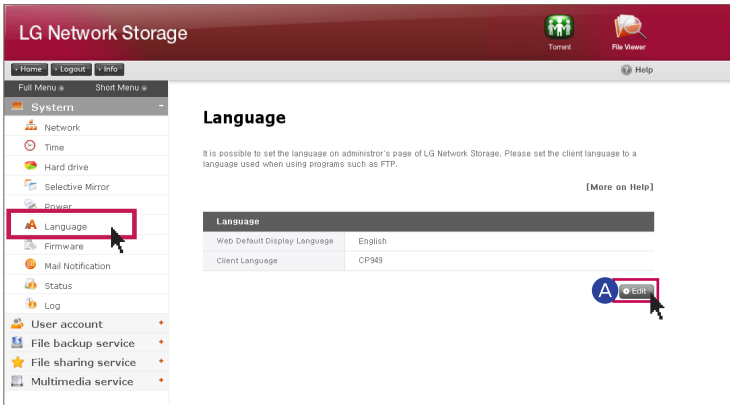
– When clicking on a button, warning pop-up window appears, and when you click on a 'confirm' button again, it shuts the system down.

– When shutting down, web access is not possible.

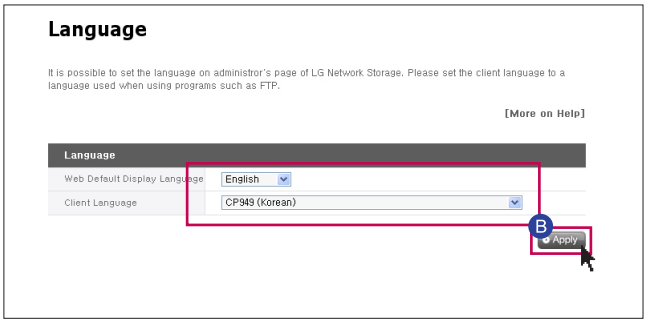
7-8. System set-up Language set-up

☞ You are able to select standard display language of web menu.

Ⓐ Click on the 'Edit' button to set language.



Ⓑ After checking the language you want, press 'Apply' button.



※ Selected language is the standard language seen when the user access the web for the first time.

※ If you set up to use cookie on browser set-up, the information regarding the language used in the pertinent computer at the latest is saved, and it shows that language on a next connection.

※ Client language: Select the language, which is appropriate for the client environment of the user. (example: FTP use) In order to use various languages simultaneously, please select Unicode. In case of selecting the Unicode, the user should use the program Unicode is supported.

7-9. System set-up Firmware

You can perform a firmware management of LG Network Storage (upgrade, initialization, set-up value back-up / restoration)

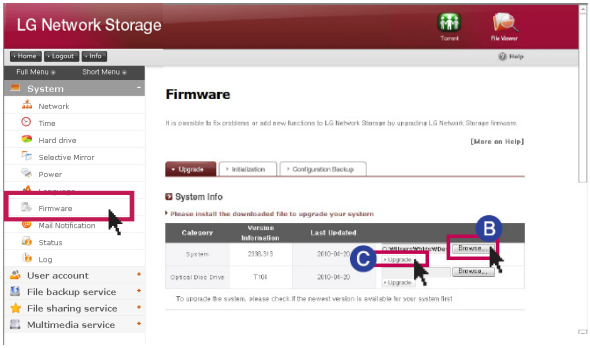
1. upgrade

It is a function to upgrade LG Network Storage system and firmware of the DVD drive by downloading from the product site. Upgrade may be performed in a PC where a firewall or security is applied.

- **System firmware upgrade**

  Ⓐ After checking the internet connection of the PC, download the system firmware of LG Network Storage from the product site linked.

  - product site http://www.lg.com



Ⓑ Click on "Browse" button- Select the system firmware downloaded from the product site.

Ⓒ Click on "Upgrade"button

Ⓓ Once the upgrade is completed, the system automatically restarts. The web connection is automatically disconnected afterwards, therefore you need to reconnect.

- **DVD drive firmware upgrade**

  Ⓐ After checking the internet connection of the PC, download the DVD drive firmware installed in LG Network Storage from the product site linked.
  - product site http://www.lg.com

  Ⓑ Select DVD drive firmware you downloaded from the product site.

  Ⓒ Install a selected DVD drive firmware.

  Ⓓ When the upgrade is completed, it gives you a notice regarding version of the DVD drive firmware installed.

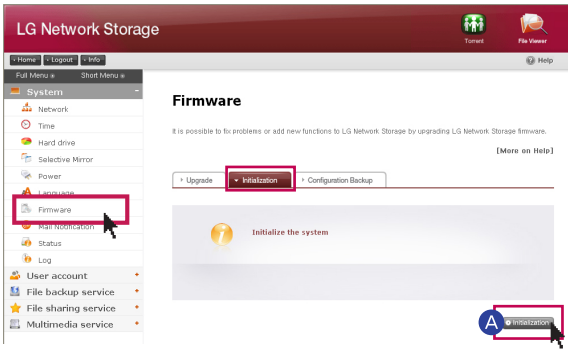
※ It is recommended to perform a back-up for the stability of the data prior to Network Storage upgrade. Installation time may take 1 minute ~ several minutes. When you upgrade the firmware, please stop other actions, and be careful that the power is not turned off. In addition, warn in advance so that the client user does not access LG Network Storage during firmware upgrade.

※ N2A2 model does not support ODD function.

7-10. System set-up Initialization and set-up value back-up

1. Initialization

It is a function of LG Network Storage initialization.

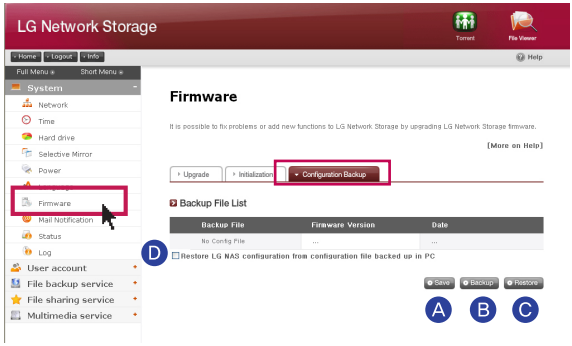


A Click on 'Initialization' button

※ Please be careful in setting up as all the user information and data are deleted after initialization.

2. Configuration backup

It is a function to back up/restore the set-up information of LG Network Storage at a certain time point. Network set-up (system name, IP address, operation group), time set-up (date/time, NTP), email alert service set-up, service set-up value are backed up, and a separate back-up is necessary for the user's data.



A **Save :** You can save set-up file you wish to save in PC.

B **Backup :** It saves a current set-up value..(It can save a maximum of 5 back-up file)

C **Restore :** It re-organizes the set-up value at a time point of restoration.

D **LG Network Storage restoration with the set-up value saved in PC :** You can restore the set-up of LG Network Storage using the set-up file saved in PC.

7-11. System set-up Email alert service set-up

☞ You can check the usage of LG Network Storage periodically using the email alert service. In addition, it is possible to let the pertinent user know of the registration result after the new user registration.

Ⓐ Select 'enable' to use a function of email alert service. In case of selecting 'enable,' please proceed to steps as in the following.

Ⓑ Enter the server address of the email server. Please obtain help from the network administrator, or refer to the introduction page of the email service in use, and enter the correct value. (example: smtp.mail.yahoo.com)

Ⓒ If the port number the mail server is using is set up at a random value which is not a default (25), please enter the port number. Generally the case of selecting SMTP SSL falls into this category.

Ⓓ There is a server that requires a process of logging in when sending emails in accordance with the type of servers. If your mail server requires a certification, please activated it and enter an user ID and password. (example, web mail SMTP server such as smtp.mail.yahoo.com requires a process of certification as compulsory. Please refer to help of the web mail service you are using)

Ⓔ At times it is being sent with encoding of the logging in certification information according to the type of the mail server.. (example, it is compulsory to have SSL certification in case of smtp.gmail.com. Please refer to help of the web mail service you are using.)

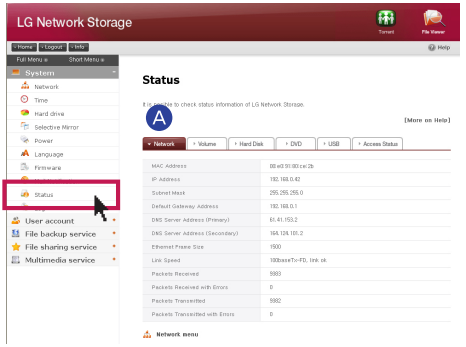
Ⓕ Enter the address of the administrator who will receive the mail.

Ⓖ Set up as to whether you are to periodically receive the information regarding the amount of usage of the hard disk. If you do not wish to receive message periodically, cancel the option.

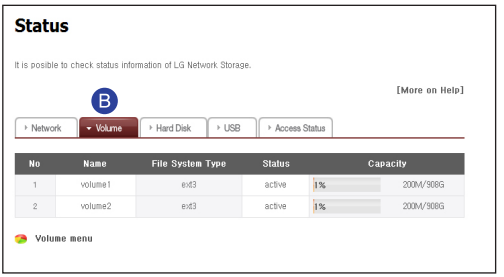
Ⓗ You can determine the sending cycle of information regarding the amount of usage of the hard disk. (daily/weekly/monthly)

7-12. System set-up Checking states information set-up

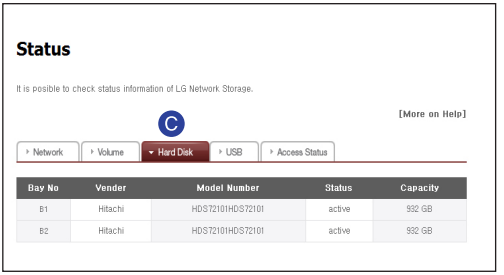
☞ It views the state of the network, volume and other equipments of LG Network Storage. When you need rather detailed information or editing, you can move to the pertinent web page by clicking on icons on the bottom.



Ⓐ **Network :** It displays information including MAC address, IP address, sub-net mask, gateway, DNS server, size of Ethernet frame, speed of the link etc.

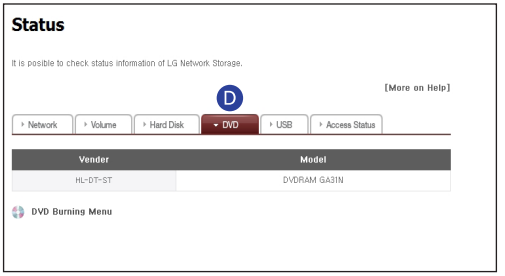


Ⓑ **Volume :** It displays the organized volume list, the amount of the usage, states information etc.

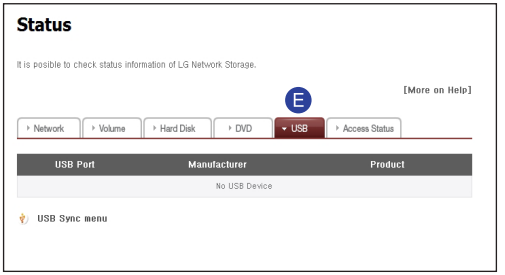


Ⓒ **Hard disk :** It displays information of all of the hard disks installed in LG Network Storage.

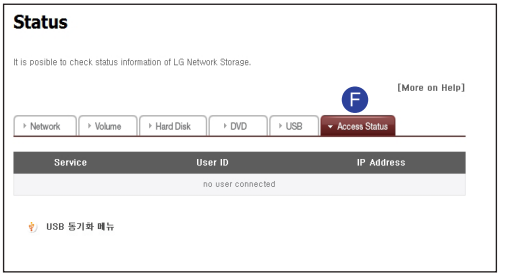
7-12. System set-up Checking states information set-up



D **DVD :** It displays information of all of the DVD drives installed in LG Network Storage. (Supported by N2T2 model)



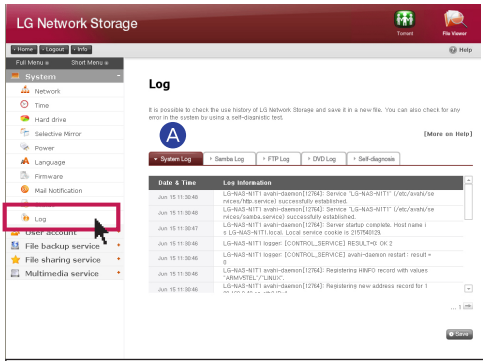
E **USB :** It displays information of all of the USB devices connected to LG Network Storage.



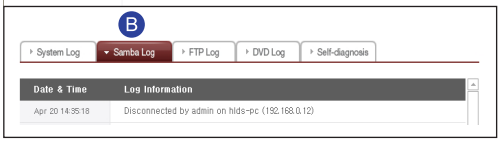
F **Access Status :** It displays the present condition of the users who are currently using LG Network Storage. (SMB , FTP)

7-13. System set-up Checking a log

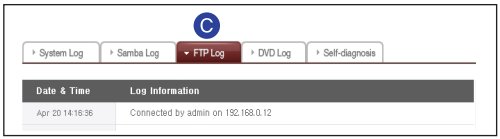
☞ It is a function to mark/save the history of the service relevant to LG Network Storage.



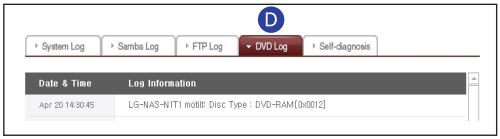
Ⓐ **System Log :** it shows the history of the system.



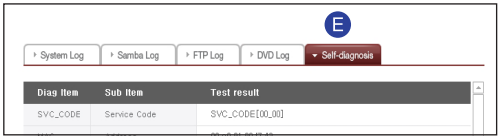
Ⓑ **Samba Log :** it shows the usage history of the share folder through Samba.



Ⓒ **FTP Log :** it shows the usage history of FTP.



Ⓓ **DVD Log :** it shows the history of the DVD. (Supported by N2T2 model)



Ⓔ **Self-diagnosis :** It performs a self-diagnosis and after a while, it displays the result.

- For the normal action, the service code category is displayed as [SVC CODE :00_00].

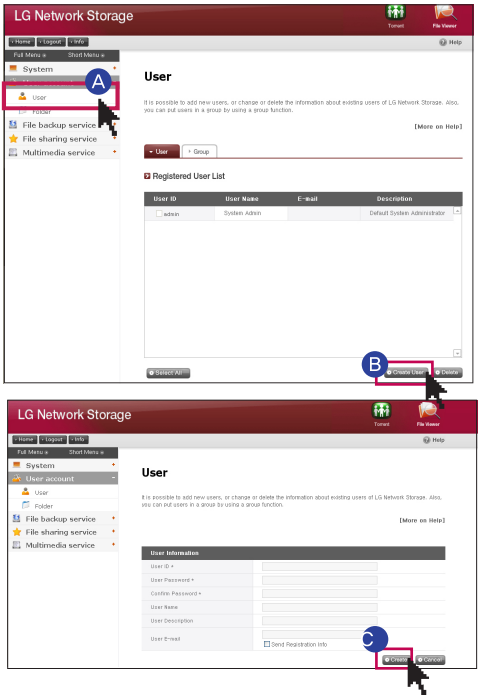
※ When clicking on a 'save' button, it saves the log of the selected tab in the client's PC.

※ N2A2 model does not support ODD function.

8-1. LG Network Storage share set-up User set-up

☞ It shows currently registered users, and you can create a new user and modify or delete the information of the registered user.

1. Add user



Ⓐ Click on 'User'

Ⓑ Click on `Create User` whom you will share it with.

Ⓒ After setting up the ID and password of the user whom you will share with, click on 'Create'.

※ You cannot use the ID that is the same as users who have already registered.

※ Enter the user's email. When the mail server set-up is in a correct state, you can send the result of the registration via email. For more details regarding mail server set-up, please refer to <mail alert service>.

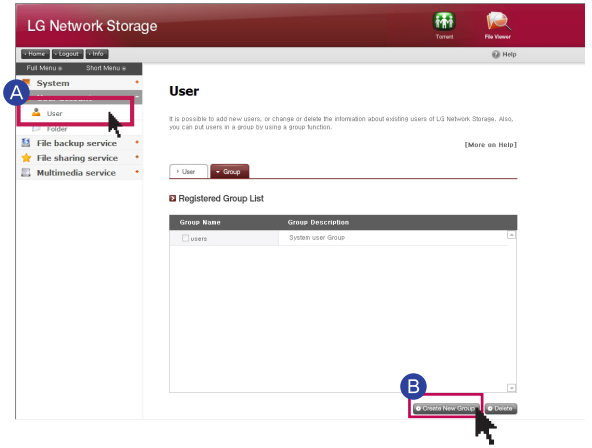
2. Editing user's information

You can go into editing mode by clicking on the user's name of the list of the registered users. You are able to change all of the information of the user except for ID.

3. Group

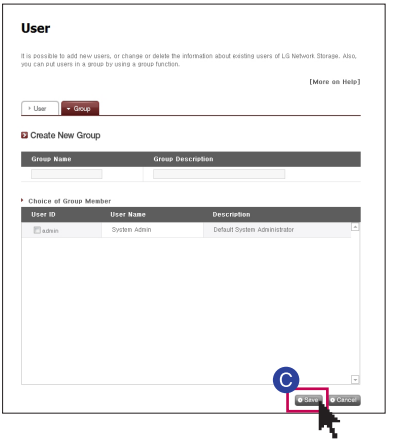
It shows registered groups at present, and you can create a new group, delete the group and add or remove users from the registered group.

4. Adding a new group



Ⓐ Move to `Group` tab after clicking on `User` menu

Ⓑ Click on 'Create a New Group'



Ⓒ Enter a name of a group and explanation, and click on the check box of the user you wish to include in the group, and select. If you want to remove the user from the group, click on the check box again and remove the check mark. Click on 'save.'

5. Editing Groups

When you click on the group name of the list of the registered group, you can modify the property of the pertinent group.

8-2. LG Network Storage share set-up

Folder creation/deletion/editing/authority set-up

☞ It displays the folder currently registered, and you can create/change/delete the folder for file share and set up the authority set-up of the created folder.

1. Adding a new folder

It displays the group currently registered, and you can create a new group, delete the group, and add or remove users from the registered group.

Ⓐ Enter a name of the share folder.

Ⓑ Enter a name of the group.

Ⓒ Enter an explanation for the folder.

Ⓓ When you have organized several volumes, please assign a volume in which a folder is to be created.

Ⓔ Select the permission of the folder share through SMB, AFP, FTP protocol.
- Windows: It activates folder access using SMB protocol (network drive) in Windows / Mac / Unix. For more detailed method of connection, please refer to 6. Using network.
- AFP(Mac): It activates folder access through AFP of the Mac client.
- FTP: It activates folder access through FTP client.

Ⓕ You can make folders currently in share be invisible on network search
When you select 'hide' option, it is impossible to share the pertinent folder using AFP/FTP.

Ⓖ Create a trashbox within the pertinent folder. When the trashbox deletes the content of the activated folder, the pertinent file is moved the "trashbox" folder within the share folder.

Ⓗ Select the possibility of the access limit of the folder. You are able to connect/use without the user limitation in case of selecting 'not use'.

Ⓘ You can assign users/group who will use the folder. Users who are not selected cannot access the folder.

2. folder property editing

When you click on the folder name from the folder list registered, you can modify all the information of the pertinent folder except for the folder name.

9-1. File back-up service DVD

☞ You can save data within a hard disk of LG Network Storage into an optical disc using an internal DVD drive. Such method enables a secondary back-up of the data, therefore you can manage the date in more safe and efficient way.

1. Burning data disc

It is a function to burn the file saved in LG Network Storage onto the optical disc.

: Move to a folder of a higher level.

: Refresh a folder currently chosen.

: Move to either a chosen file from the left folder window or a right folder to organize the list to record the folder.

: Delete the chosen file or folder from the right side list, which has been organized to record.

Ⓐ Move to a location in which a folder or file you wish to save is saved.

Ⓑ Organize the list of the data to record by choosing a folder or file to record and moving it to the right side.

Ⓒ Assign a name of the disc to record in a 'disc name' window.

Ⓓ Check if the disc is able to record, from the disc state window by clicking on 'refresh' button.

Ⓔ Start the record with a click on 'burn' button. Progression bar is displayed with the start of the action. If you want a record cancellation, press 'cancel' button, which is displayed along with the progression bar.

Ⓕ When the burning is completed, it automatically ejects the disc.

※ N2A2 model does not support ODD function.

9-1. File back-up service DVD

2. Image burning

It is a function to write the image file saved in LG Network Storage to the disc. (iso file, cue / bin file)

Ⓐ Move to a pertinent location in which an image file you wish to record is present.

Ⓑ Select image file to write

Ⓒ Check if the disc is able to record, from the disc state window by clicking on 'refresh' button.

Ⓓ Start the record with a click on 'burn' button. Progression bar is displayed with the start of the action. If you want a record cancellation, press 'cancel' button, which is displayed along with the progression bar.

Ⓔ . When the writing is completed, it automatically ejects the disc

※ You can do erasing of the disc, which is able to re-write by clicking on 'disc initialization' button. In this case, previous data are all deleted.

3. Back-up button set-up

You can set up a method to back up ODD using a "back-up" button at the front.
- data back-up : Contents in the media are backed up as they are to Network Storage.
- image back-up (iso file) : Contents in the media is backed up as one file in an image file format.

※ Image back-up does not support multi-session disc.

※ N2A2 model does not support ODD function.

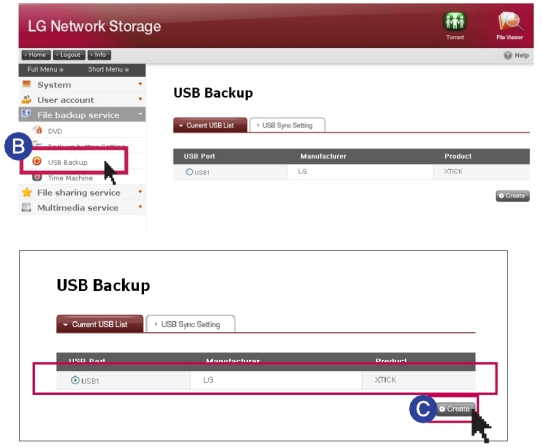
9-2. File back-up service USB back-up set-up

☞ It is a function to back up the data of USB device to LG Network Storage. You can create an action in accordance with each USB device. One action is composed of information such as USB device ID, subject folder, back-up method and interval.

1. Current USB list

It displays the list of USB device connected to LG Network Storage

- **Back-up set-up order**



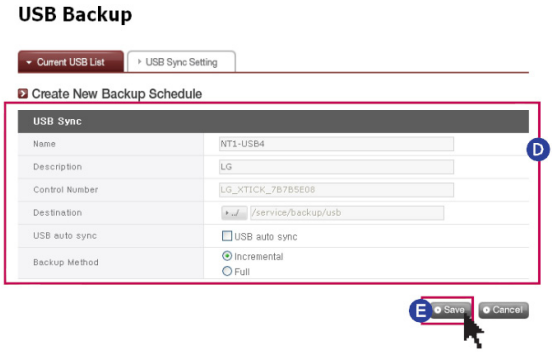
Ⓐ Install USB device to LG Network Storage

※ LG Network Storage(N2T2/N2A2) has 1 USB port in the front and 1 USB port in the back.

Ⓑ File backup service –〉 'Click on 'USB Backup' –〉 It displays the list with refresh.

Ⓒ Select a device you want to back up, and press 'Create' button.

9-2. File back-up service USB back-up set-up



Ⓓ **Name :** Save the operation name. (Automatic creation)

Description : Enter the action explanation.

Control Number : The unique ID of the installed device is displayed. The unique ID is created automatically from the manufacturer information and product information etc. (automatic creation) .

Destination : Assign a subject folder that is backed up. It automatically creates a standard folder on selecting a device. You can assign a specific folder, which is not a standard folder.

USB auto sync : Every time USB is installed, it automatically recognizes, and automatically performs back-up operation according to the set-up information. Consequently it is not necessary to press button as with One Touch back-up.

Backup Method : It assigns a back-up type

- Incremental: back-up is performed for added information to the original since the previous back-up only.
- Full : back-up is performed for the whole original file.
- Please refer to [Incremental back-up & Full back-up] of the back page for more detailed information.

Ⓔ Click on 'Apply' button

- **USB synchronization set-up**

  You can display an action list currently set up and edit or delete.

9-2. File back-up service USB back-up set-up

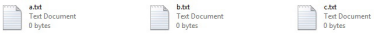
- **Incremental back-up and Full back-up**

  LG Network Storage supports two types namely, incremental back-up and full back-up for the back-up of mobile storage device. For the location in which mobile storage device is backed up, there are user assigned folder and last backup folder.

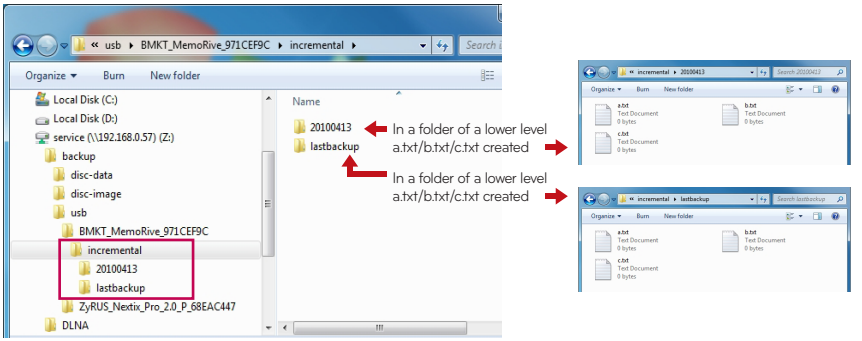
  - **Incremental :** All of the data of the assigned mobile storage device are backed up in the Last Backup folder. In the folder user assigned, only added contents are backed up when compared to the last backup folder previously backed up.

  - **Full :** It performs back-up for the whole original file. Unlike incremental back-up, full back-up contains the whole back-up contents in the folder user assigned..(It does not save separately in the Last Backup folder)

This is an example about Incremental back-up and Full back-up. On first back-up(January 1st 2009), USB contains files as in the following.

ex 1) 

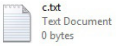
in this case, when USB back-up proceeds with Incremental type, folder of the pertinent date of back-up is created and above files are saved. At the same time, last backup folder is created and all of the files currently present in USB are backed up. At this time, system folder is created as follows.

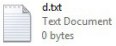


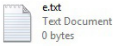
9-2. File back-up service USB back-up set-up

On second back-up, (January 2nd 2009), a.txt and b.txt are deleted, d.txt and e.txt are added. At this time, USB contains files as follows.

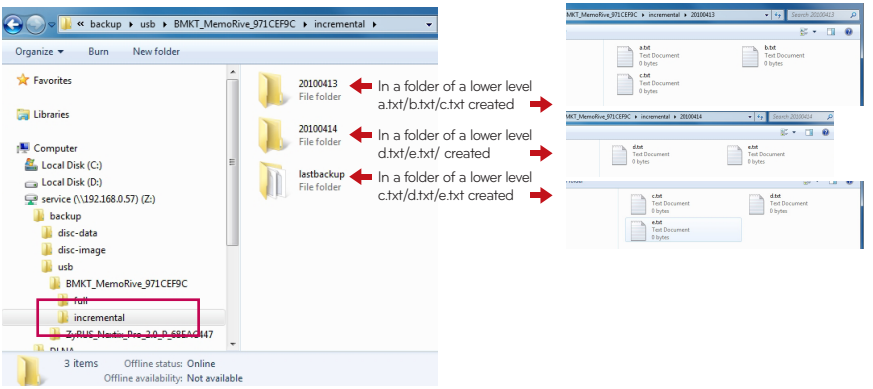
ex 2)







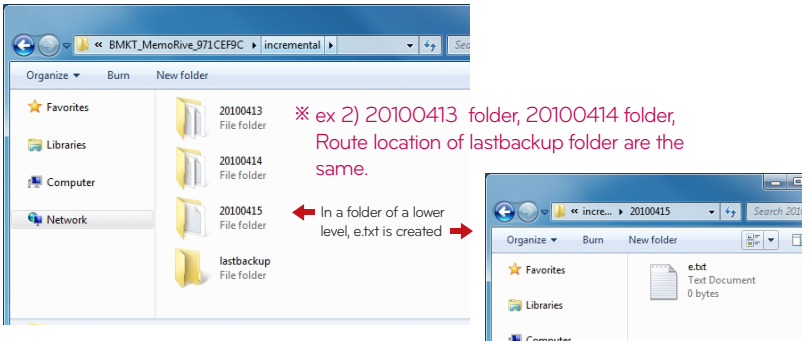
A folder with the date of back-up is created and only added or changed files are saved there on second back-up as well. As in above case, only added d.txt and e.txt are saved. And last backup is filled with files that are currently present in USB.



9-2. File back-up service USB back-up set-up

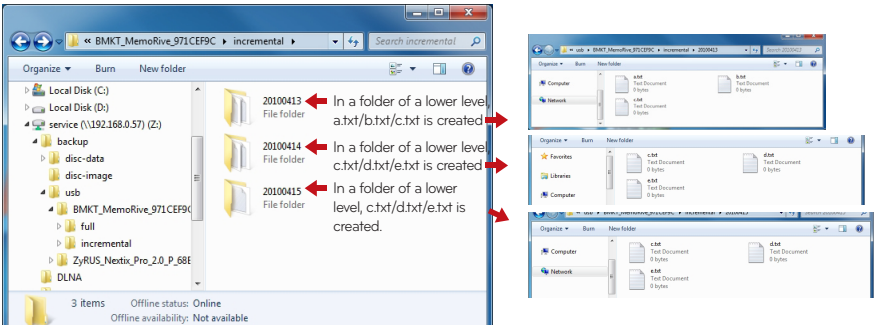
On third back-up (January 3rd 2009) it opens e.txt, edit the content and then saves. At this time, only e.txt is saved in a new folder. And c.txt, d.txt, e.txt currently present in USB are backed up as original in last backup.

ex 3)



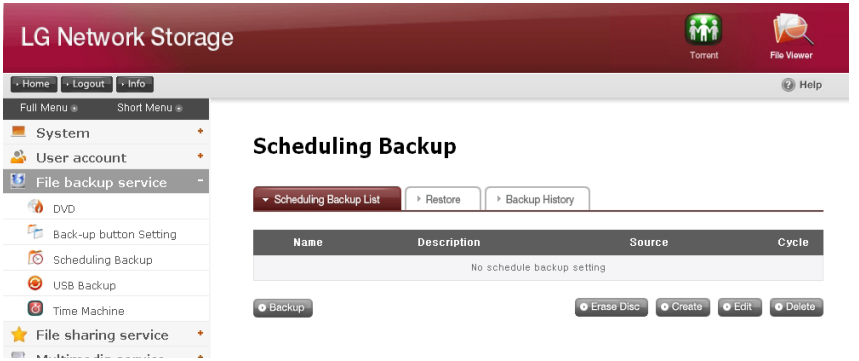
If you choose full type for the above third back-up, a pattern since the third back-up is as in the following.

ex 4)



9-3. File back-up service Schedule Backup & Restoration

This function allows you to back up and restore the data stored in LG Network Storage, using DVD drive. A folder needs to be selected to schedule backup. The user can also select a folder and a file before start of the backup.
To create a backup schedule, a folder that needs to be backed up, a cycle for backup, conditions for the file that will execute backup, and verification information should be selected. It is possible to execute multiple backups in one backup disc. Also, more than one discs can be used for backup in case the size of the files to be backed up exceeds that of one disc.



1. Schedule Backup

You can add, edit and delete disc formatting and backup schedule by using a button on the schedule backup list. A blank disc or initialized disc can be used to back up for the first time. To initialize a disc, click 'Erase Disc' button. BD-RE, BD-R, DVD-RAM and DVD+/-RW disc can be used to schedule backup.

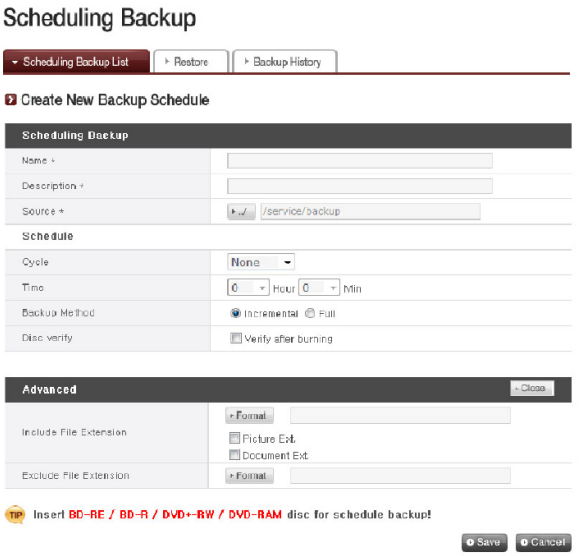
※ BD-RE,BD-R can be used on NAS with Blu-ray drive.

※ Supported by N2T2 model

2. Create a Backup Schedule

Ⓐ Click 'Create' button to create a backup schedule.

Ⓑ Fill in the schedule as below.

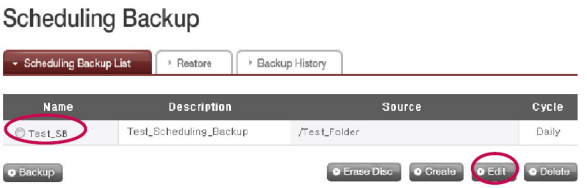


- Enter the name.
- Enter description.
- Select the folder in LG Network Storage to be backed up.
- Select a back up cycle from 'Daily, Weekly and Monthly'. Select a day if the backup cycle is 'Weekly', and a date if 'Monthly'.
- Select the time for backup.
- Select a backup method.

- Select a backup method.
Backup is done by file, and it is possible to select 'Incremental Backup and 'Full Backup'. When backup is done, a new folder named 'YearDateHourSecond', based on the date of backup will be created, and the folders and filers within that folder will be backed up. In case you select 'Incremental Backup', only the files that have been newly added or changed since the first backup will be backed up.
- Check for errors in the file written on the disc after burning.
- Click 'Open' button for detailed setting.
- It is possible to designate extension for the file to be backed up. When you select a 'Picture File' or a 'Document File', you can back up only the files with the extension of a picture file or a document file. Otherwise all files will be backed up.
- It is possible to specify an extension of the file that you wish to exclude. Specify an extension(*.bak, *tmp, etc) of a file to prevent unnecessary backup of files.
- Click 'Save' button to store the backup schedule.

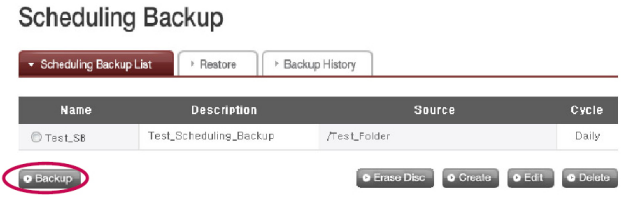
3. Edit a Backup Schedule

Select a backup schedule to be edited from the backup schedule list and click the 'Edit' button or the name of backup schedule to change the details.



4. Start Scheduled Backup

You can use two discs or more to back up the folder or file whose size exceeds that of single disc. In such a case, it is possible to use different kinds of discs for backup(i.e. DVD and DVD disc or DVD and BD disc can be used)
You will see a screen as follows after setting is complete. You can select the backup schedule from the backup list and click 'Backup' button to start scheduled backup.

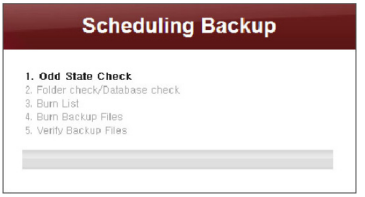


※ Make sure to check below as backup cannot be done in the cases below.

- When playing media using DVD drive
- When a disc is not inserted at the designated time
- When the inserted disc is not a writable disc or initialized disc.

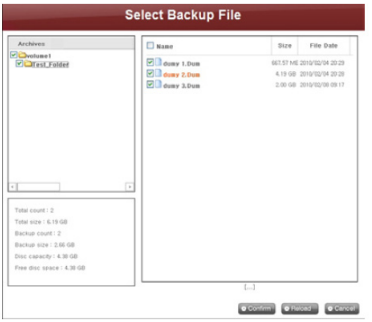
5. Scheduled Backup Process

Scheduled backup will be done in the process below.



Ⓐ Check DVD drive status.
Check whether DVD drive is properly mounted and the backup disc is loaded.

Ⓑ Check the backup folder and database.
Check the data of the folder to be backed up and the information of the backup database. After checking is complete, 'Select Backup File' screen will pop up. You can back up the file selected from the folder to back up on the screen below, using the 'Backup' button. All files that need to be backed up are selected. You can check the total count of files to be backed up, and the backup count and disc capacity of the selected files at the bottom left of the 'Select Backup File' screen, in accordance with specified backup data. Also, you can check the total size and free space of the disc to control backup size accordingly. Maintain the existing file selection or select additional files, and click 'Confirm' button. Click 'Reload' button to see the newest information about the folder to be backed up(Reload function). Click 'Cancel' button to cancel backup.



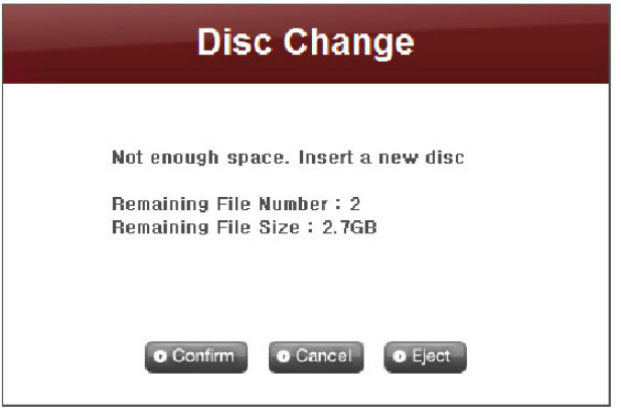
Ⓒ Configure a burning list.
Configures a list of data to be backed up on a disc.

Ⓓ Burn a backup file.
Burns the data in the configured list on a disc.

Ⓔ Check backup data.
Compare the backup data to the original data to check if backup has been properly done. To check, put a check on 'Verify after Burning' check box when setting backup. It may take more time to back up when using 'Verify' function. Even if you move to another webpage or log out during backup process, you can check the progress by logging in again and accessing the backup schedule page.

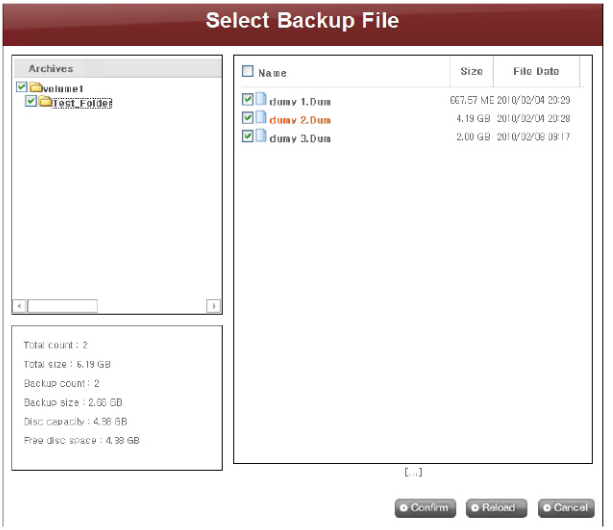
6. Replace a Backup Disc

If there is not enough free space in the disc from frequent scheduled backups, you can replace the disc and proceed. If the size of the data to be backed up exceeds the free space of the disc, the data as much as the free space will be backed up. When the backup is complete, 'Disc Change' screen will pop up and the trey will open automatically. Check the size of the remaining files to be backed up on 'Disc Change' screen, insert a new disc and proceed with backup. In case of using a disk previously used, you can format the disk and proceed with backup, following the directions.
If the size of the file to be backed up exceeds free space of the disk, you can divide the files to back them up consecutively in a number of discs. In such a case, restoration will be done by inserting two discs consecutively as well.
Replace with writable media and click 'Confirm' button.



Click 'Cancel' button to back up rest of files later. When backing up rest of files later, you can click 'Backup' button on 'Scheduling Backup List' menu and back them up consecutively, or insert a writable disk for automatic backup at a preset time.
Screen below will pop up when you click 'Backup' button for consecutive backups. The file in red is a file which had been divided, due to insufficient size of the writable disc, and then backed up. The file above it is a file that has been completely backed up, and the file below it is a file to be backed up. Click 'Confirm' button to proceed with backup in the previous setting.

7. Reload



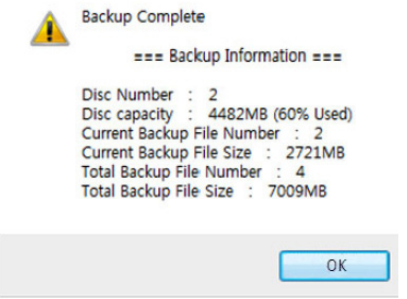
Clicking 'Reload' button can lead to two situations below.

- **Incremental Backup**

  Files except ones that have been previously backed up will be loaded.

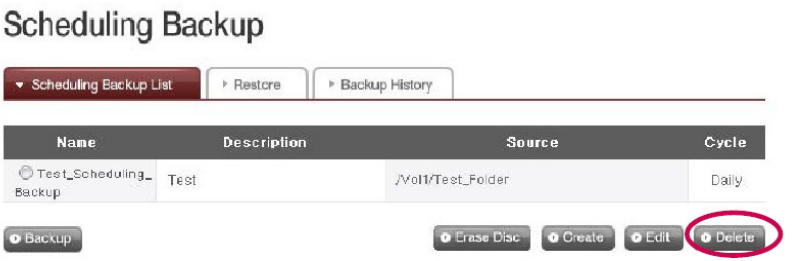
- **Full Backup**

  All files including ones that have been previously backed up will be loaded.
  Backup will finish upon completion of this process, and the screen below will pop up at this time.



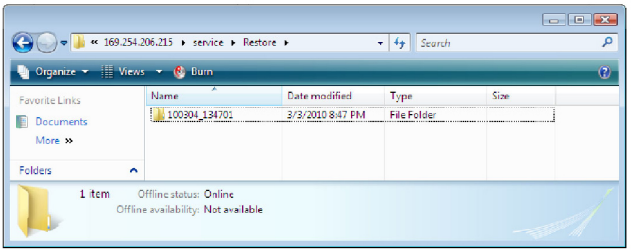
8. Delete a Backup Schedule

Select the backup schedule you wish to delete from the backup schedule list, and click 'Delete' button.



- **Restore**

  Restore a certain file or a folder from the disc that has been backed up to LG Network Storage. Restoration is done in the fixed folder(/LG Network Storage/Share/Restore), and a name of the folder will be the date and time of restoration, for example, '100217_173754'.



1. Restore a Folder or a File

<To Restore a Folder>

Ⓐ 'Select a folder to restore from the left screen on 'Restore' menu.

Ⓑ Click 'Restore'.

<To Restore a File>

Ⓐ 'Select a file to restore from the right screen on 'Restore' menu.

Ⓑ Click 'Restore'.

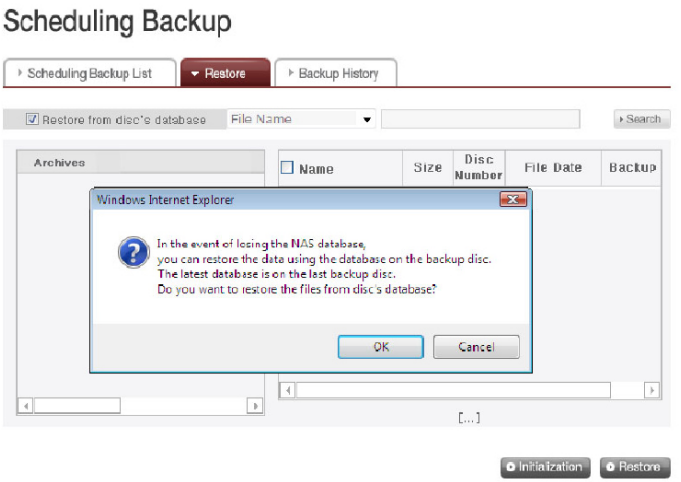
※ Tip

- If there are many versions of one file with different backup dates, it is possible to select the newest file and all files, and cancel the selection.
- You can search for files to be restored from the right screen on 'Restore' menu. Enter the file name you want to find and click 'Search' button.

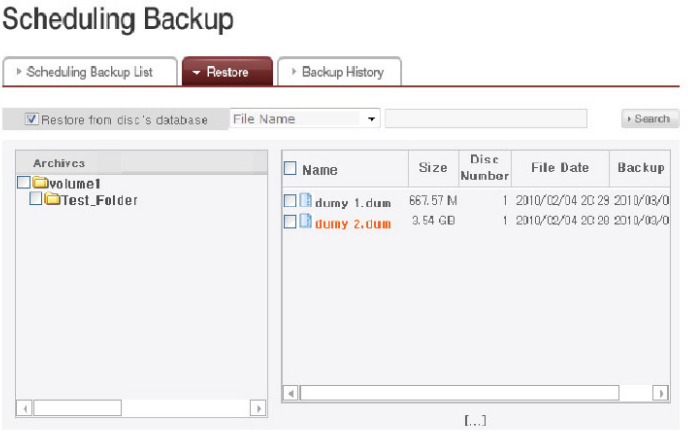
2. Restore by Using Disc DB

When scheduled backup database stored in NAS is deleted from initializing NAS system or backup schedule, it is possible to restore it by using the database stored in the backup schedule disc itself. Folders and files can also be restored, just like the previous restoration.

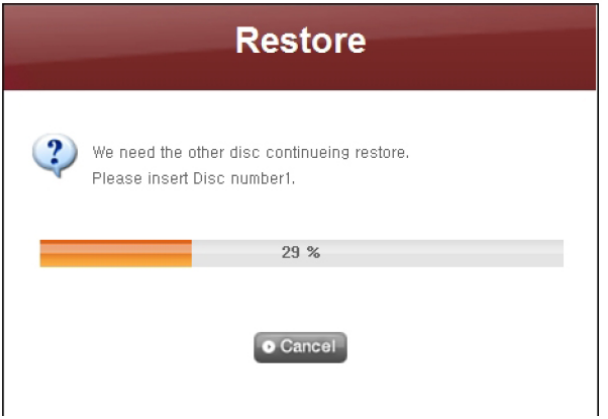
Ⓐ Put a check on the 'Restore from Disc's Database' check box on the 'Restore' menu to load the backup schedule database from the disc. Click 'Confirm' button when a warning that ask for an agreement pops up.



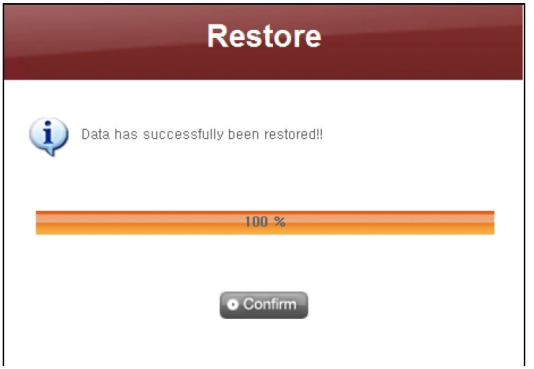
B You will see what's in the database in the disc on the bottom. File name in red means that there is a file that has been divided and backed up due to the insufficient space in the disc. Finally, insert the backup disc and click 'Restore' button.



C When a screen below pops up, insert the disc of the corresponding number(Disc No. that has been backed up first in the case below). Restoration will begin automatically once the disc is inserted.

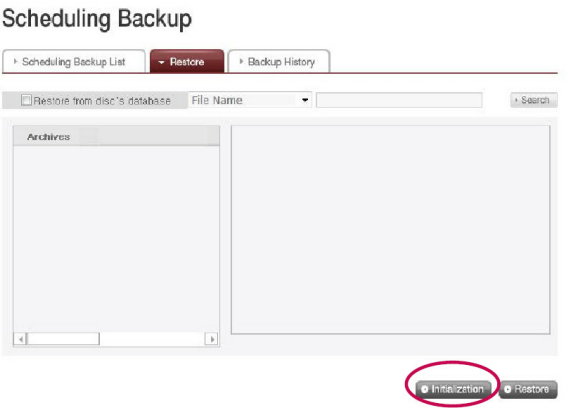


Ⓓ The process below can be repeated in accordance with the number of the discs backed up. When all data are restored, the screen below will pop up to inform the completion of restoration.



3. Initialize Backup Schedule

To start backup schedule, initialize backup status by clicking 'Initialization' button on 'Restore' tab. During initialization, below will be done.



Ⓐ Initialize backup database.

Ⓑ Initialize the backup disc.
Be cautioned during initialization as the previous backup database will be deleted and the disc in the drive will be initialized.

4. Manage Restoration History

You check and manage history of backup and initialization on 'Backup History' menu. 'Backup History' menu shows backup history, backup information and backup file information.

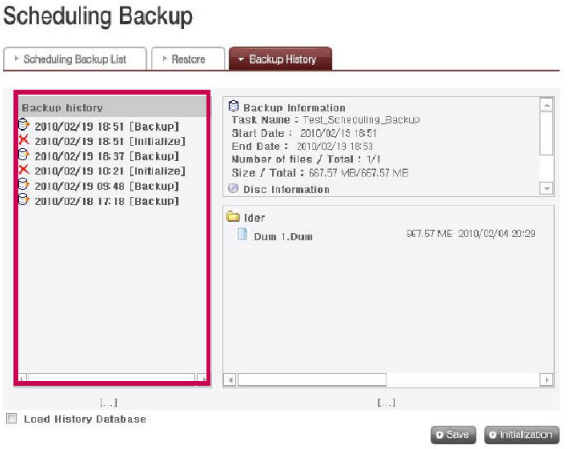
Ⓐ To delete the entire backup history, click 'Initialization' button.

Ⓑ Click 'Save' button to save database on backup history in the user's computer.

Ⓒ Database for backup history saved in the user's computer can be restored in NAS.
To restore backup history, first put a check on 'Load History Database' check-box, specify database saved in the user's computer and click 'Restore' button.

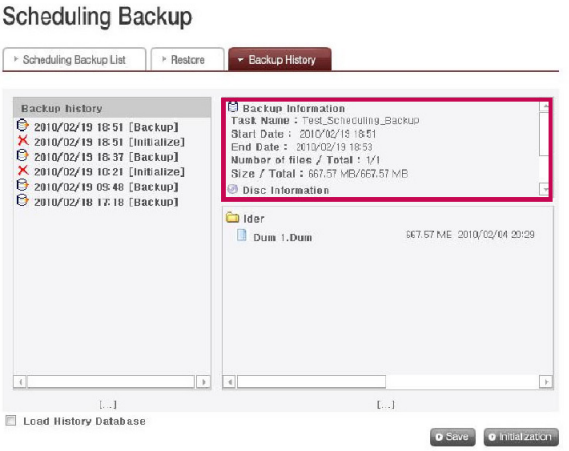
5. Backup history

You can see Backup and Initialization history.



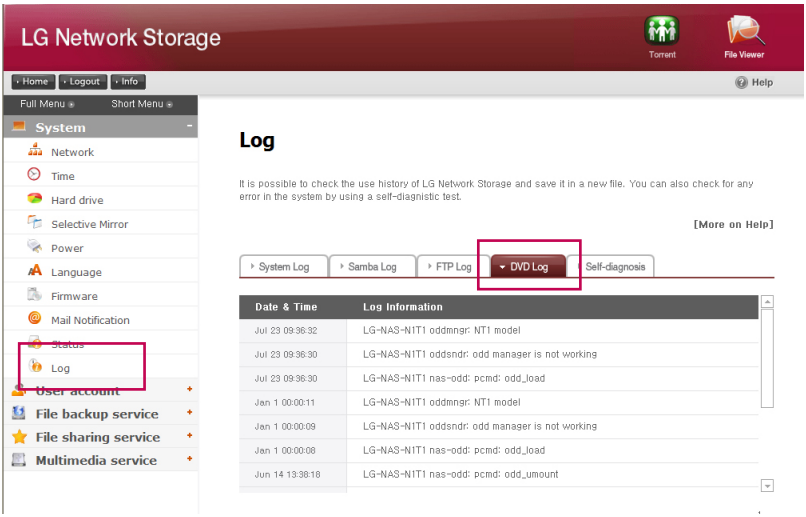
6. Backup Information

You can see information on backup and initialization history from 'Backup History' tab. Backup information shows the start and end of backup, and size of files backed up, and disc information shows the space used and the number of the disc.



9-3. File back-up service Schedule Backup & Restoration

In addition, you can see more details by searching for time information on 'Backup History' from 'System – Log – DVD log'.



9-4. File back-up service Timemachine

☞ Time Machine service is a function of an automatic back-up which is internal in Mac OS X. It is a service that maintains the copy of Mac data as the up-to-date state in LG Network Storage.

※ This service supports Mac OS X version 10.5 Leopard or higher.

1. Web set-up

Ⓐ Assign a folder to save the copy of Macdata. Assign AFP(Mac) as support protocol on folder set-up.

Ⓑ Set-up a timemachine as 'enable' and select the assigned folder.

Ⓒ Press "apply" button

※ If the AFP server is inactivated on web, it is automatically activated on setting up timemachine in Mac.

2. Mac OS

Ⓐ Press "system environment set-up" > "Time Machine"

Ⓑ Press "disc change...", and select a folder set up on the web, and then press "use as back-up"

Ⓒ When log in window pops up, enter the ID and password and press 'connect'.

Ⓓ Since then, timemachine becomes "on" automatically and it starts back-up.

※ If you press "option" button, you can set up a folder unnecessary for back-up.

10-1. File sharing service File server

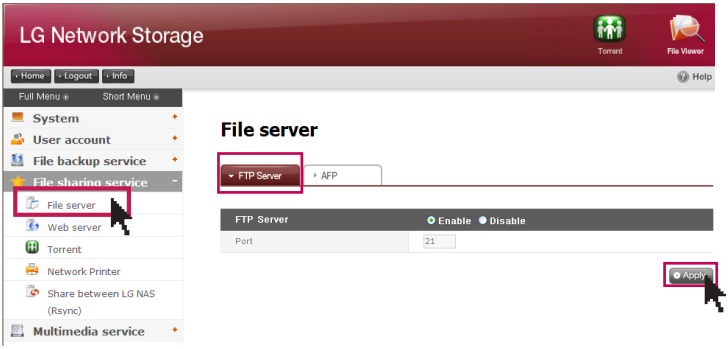
☞ It is a function to set up accessibility of LG Network Storage through FTP/FTPS, AFP.

※ In an environment using IP network sharing device, you might need to modify the set-up of the IP network sharing device.

1. FTP/FTPS

Please refer to port-forwarding or DMZ set-up of IP network sharing device manual.

※ FTP provides a convenient environment when accessing LG Network Storage on internet. To use FTP service, click on File sharing service -> move FTP server -> "Enable"-> "Apply" Then follow steps as in the following. The method is the same for other OS.



Ⓐ You can use FTP access program, or open the search engine and enter 'ftp://IP address : port number' in a space for address. If you do not know the IP address, please refer to 5-1. Using NAS Detector. The port number can be changed to a random value the user sets up. Default of FTP port number is 21. If you use the default (21), you can access while omitting 21.

※ When using DDNS service LG Network Storage provides, you can access using 'ftp://myname. lgnas.com:port number' instead of IP address. For more details, please refer to remote access of the system <DDNS>.

※ If you use port 21, a default, you cannot access using ftp://IP address or ftp:// myname.lgnas.com while omitting the port number.

Ⓑ Log in by entering the user name and the password.

Ⓒ You can see share folder. You can manage folder and file with Drag & Drop, and rename or delete. Depending on the network environment it is prohibited to operate FTP server on the local network using a firewall. In case of a problem with FTP access, it is recommended to refer to IP network sharing device manual or receive help from the network administrator.

※ LG Network Storage supports FTPS, which has been strengthened a security on top of a previous FTP with a purpose of safely protecting the user's data moving around the internet. In order to use FTPS, you should use FTP access program, which supports FTPS. Search program window operating system supports does not support FTPS. In general, common FTP access programs support FTPS, and for more details please refer to a user manual of the pertinent access program. (In case of FileZilla,a popular free FTP access program, you cannot access LG Network Storage with FTPS.)

2. AFP

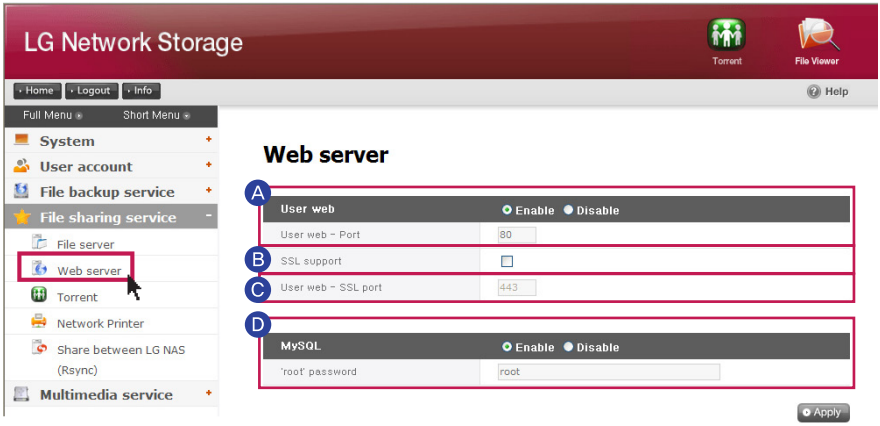
AFP provides a similar environment with sharing folder on Windows.

※ AFP is usable within the network in which LG Network Storage is installed. However it is not possible to access through internet from the outside unless there is a special network set-up due to reasons such as firewall etc.

※ It is recommended to use 'window file share' unless there is a special reason as Mac OS X basically supports 'window file share'

10-2. File sharing service Web server

Web Server is a function that allows the user to create his or her homepage in NAS.



Ⓐ When the web server is enabled, 'myweb' folder will be created in NAS, and the use can upload what he or she wants to put on the web, using SAMBA.
When uploading by using FTP, it is possible to activate FTP for 'myweb' folder in the folder menu.

※ Default value of a web port for a user web is 80. When using a provisional port, it is possible to designate a provisional port between 10000 and 50000.

Ⓑ SSL support : It is possible for the user to upload on the web by activating https(secured access)

Ⓒ User web - SSL Port : It is possible to designate a port to be used for secured access.

※ A regular web port and SSL port cannot be used at the same time.

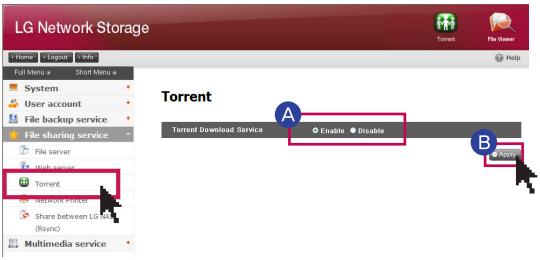
※ It is possible to set up the webpage on http://server_ip:8000/ to change NAS setting.

Ⓓ MySQL : MySQL DB is provided to realize a webpage by using database.
MYSQL port is 3306, and the ID and password of MySQL Admin is root and root respectively. "mysql" DB is set as a default on default DB.

10-3. File sharing service Torrent

☞ Torrent is a P2P file share program, which enables download files from various sources, and it does not have a function of a search within itself. Therefore you should obtain a torrent file that you wish to download first, and then register in the torrent program so that you can download the file.

※ In order to use the torrent function, you need to set up as "Enable" in torrent category of the service menu.



A Click on 'Enable'

B Click on 'Apply'

1. Download

A Click on an open icon.

B Click on 'find' on a pop-up window and then choose the torrent file downloaded in advance. Or enter the route of the torrent file on URL.

C You can find completely downloaded file below \service\Torrent of the network folder.

2. Use

A Open : Register the torrent file of the file to download.

B Remove : Delete the file you chose from the list. The actual file is not deleted.

C Pause : It temporarily stops the download of the download file you chose.

D Resume: It restarts the download of the chosen file temporarily stopped.

E Pause All : It temporarily stops the download of all of the files being downloaded.

F Resume All : It restarts the download of all of the files paused.

G Filter : It makes a filter category be seen or not be seen.

H Inspector : It makes the information of the chosen file to be seen or not be seen.

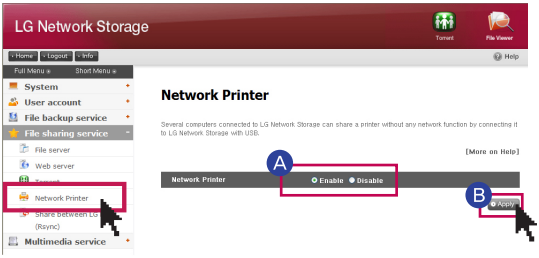
3. Set-up

A Click on the set-up icon.

B Choose preference and then set up the speed at turtle mode. Afterwards when you click on a turtle-shaped button you can limit it to the transfer speed, which has been set up.

10-4. File sharing service Network printer

☞ It is a function to use USB printer as a network printer by connecting to LG Network Storage.



A 'File share service'-> Click on ' network printer 'Enable'

B Click on 'apply'

1. Windows users

A After you set up the network printer as "enable" on web menu, and connect to share folder of LG Network Storage, then the printer icon appears.

B Proceed installation process of Windows printer with double-click on the icon. Please refer to an installation manual of the pertinent printer for the installation.

C Once the installation is completed, you can use the network printer service.

2. Mac users

● OS X 10.4 Tiger

Ⓐ Click on 'move>utility' from a tool collection.

Ⓑ Click on 'printer set-up utility'

Ⓒ Click on 'add'.

Ⓓ Click on 'another printer' while pressing an alt key on a keyboard.

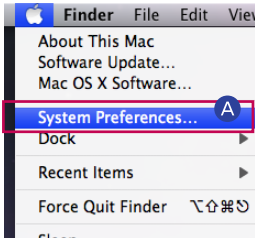
Ⓔ On a pop-up window:

i. Choose 'advanced'.
ii. Choose 'Windows printer through SAMBA'.
iii. Enter URI of the printer. The format is [smb: //LG Network Storage IP address/ printer name]. You can find the printer name from a page 'equipment organization > USB printer' of the device.
iv. Choose 'general ' for 'printer model'.
v. Click on 'add'.

※ You should press alt key and simultaneously click on 'another printer' in order to view advanced printer set-up. Otherwise an option does not appear.

vi. Printer appears on the printer list. Now you are ready to use.

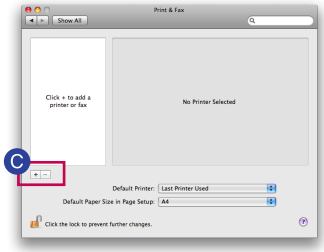
● OS X 10.5 Leopard or higher



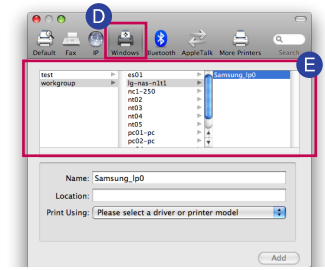
Ⓐ Operate system environment set-up.

Ⓑ Choose print & fax.

10-4. File sharing service Network printer

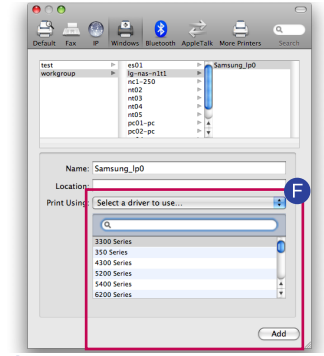


C Click on '+' button on the left botton.

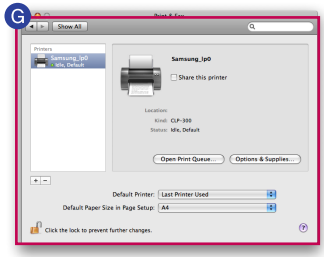


D On a pop-up window : Click on Windows on the top.

E When 'workgroup' appear, choose workgroup -> Host name of LG Network Storage in use -> printer to be used in order.



F Choose 'choose driver to be used..' from 'printer in use' on the bottom. -> Choose the pertinent printer model -> Click on 'Add'.



G Printer appears on the list of printers. You are now ready to use.

※ For Linux users, please refer to OS manual or inquire at the pertinent printer company.

10-5. File sharing service

RSYNC (Remote Data Backup Service)

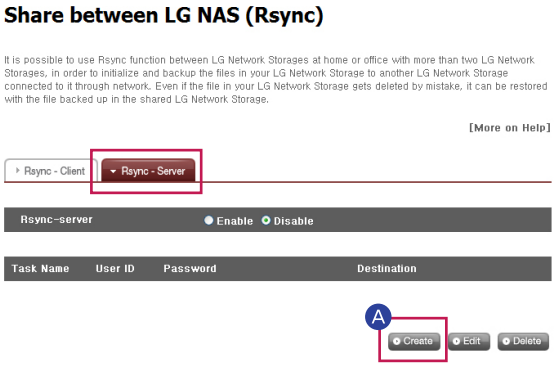
Data can be backed up using another LG NETWORK STORAGE within the same network to safely store precious user data saved on the LG NETWORK STORAGE through Rsync. Loss of important data due to the fault of the user, or damaged data due to errors, can be reloaded using restoration from backed up data.

- **Data Backup using Rsync**

  To back up data using Rsync, Rsync-client configuration on the target LG NETWORK STORAGE and Rsync-server configuration on the source LG NETWORK STORAGE are needed.

1. RSYNC-server Configuration

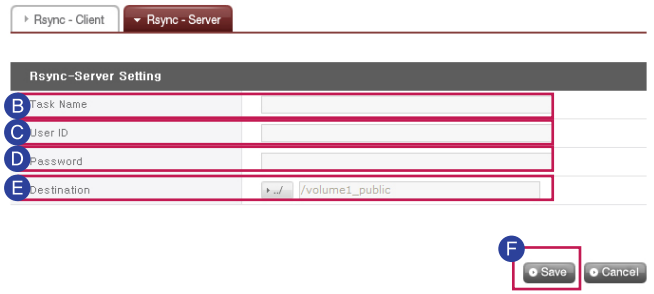
User may configure functions for data backup from another LG NETWORK STORAGE within the same network.
For data backup from another LG NETWORK STORAGE within the same network, follow these steps



A Click on the 'Create' button.

10-5. File sharing service

RSYNC (Remote Data Backup Service)



B Configure task name.
This is an identifier to distinguish remote data backup service. The source LG NETWORK STORAGE and target LG NETWORK STORAGE must have a common task name. The name can be 15 characters or less, beginning with a letter, and the remaining characters may be alphanumeric characters, with the exceptions of '_'.

C Input the User ID of the data manager.

※ Users not registered to the LG NETWORK STORAGE for data backup must refer to [Section8. Add User] to generate a new user account.

D Input user password.

E Configure target directory to save backed up data.

F Select 'Save' to save.

A Check 'Enable' for the Rsync server to activate a remote data backup service as a server.

※ Select 'Edit' to alter a configured Rsync server task.

※ Select 'Delete' to delete a configured Rsync server task.

※ Deletion of a configured Rsync server task will not affect user information or data already backed up

10-5. File sharing service

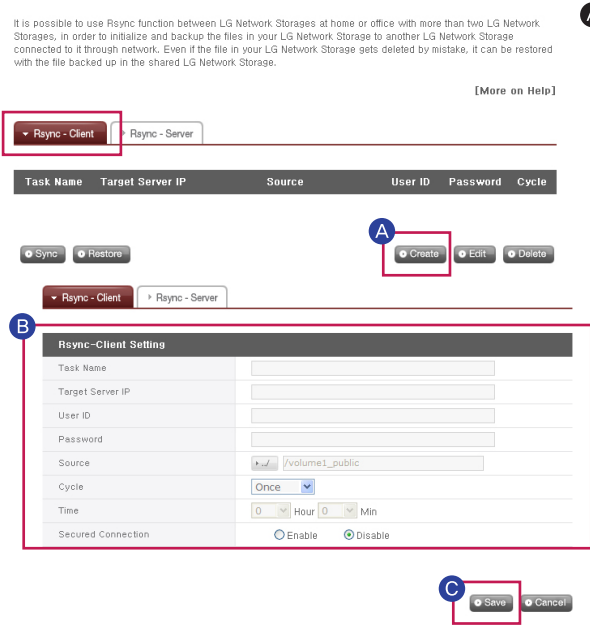
RSYNC (Remote Data Backup Service)

2. RSYNC-client Configuration

Users can configure functions for data backup to another LG NETWORK STORAGE within the same network.

Share between LG NAS (Rsync)

Ⓐ Select 'Create'.



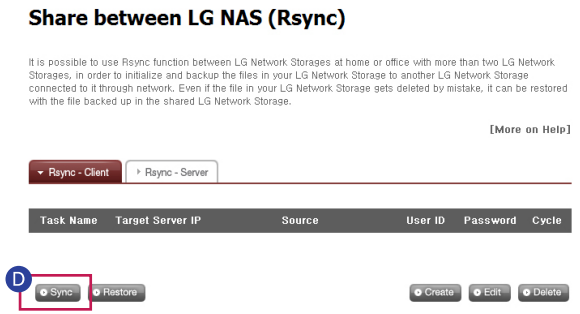
Ⓑ - Task Name : Enter the same task name as configured for the Rsync-server.
- Target Server IP : Enter IP address of the target LG NETWORK STORAGE (Rsync-server).
- User ID : Enter the same ID as configured for the Rsync-server.
- Password : Enter the same password as configured for the Rsync-server.
- Click on the 'Choose Directory' button to choose the directory containing the data to be backed up. (Choose one of the directories in Rsync-client.)
- Configure data backup frequency.
  Data backup frequency can be selected from the options Once, Daily, Weekly or Monthly.
  Once: For a one-time backup only.
  Daily: Backup is performed daily at the scheduled time.
  Weekly: Back up once every week on a designated day.
  Monthly: Back up once every month on a designated date.
- Set time for data backup.
- Send files more safely through an encoded transmission

Ⓒ Click 'Save' to save.

※ Clicking 'Save' is insufficient to run the Rsync client.

10-5. File sharing service

RSYNC (Remote Data Backup Service)



D Check settings appearing on screen and select a task. By selecting 'Sync', the remote data backup service will begin and the progress percentage will be displayed. When the remote data backup service is successfully completed, the progress percentage will show 100 and a completion message will appear.

※ Complete Rsync-server configuration on target NAS and complete all Rsync-client configurations on source NAS before selecting 'Sync'. The machine may otherwise not function correctly.

3. Alteration of Configuration for Remote Data Backup

To begin alteration of configuration for remote data backup, select a task to be altered among those appearing on the screen and click 'Edit'. After alteration is complete, click 'Save' to save changes.

4. Deletion of Remote Data Backup

To delete a configured remote data backup task, make a selection on the screen and select 'Delete'

※ Deletion of a remote data backup task will not affect data that is already backed up.

10-5. File sharing service
RSYNC (Remote Data Backup Service)

- **Restore Data Using Rsync**

  The user's damaged data can be backed up from another LG NETWORK STORAGE containing the backed up data within the same network.

For remote data restoration.

Ⓐ Select the name of a remote data backup task performed prior and select 'Restore'.

Ⓑ Select the target directory to save backup data.

※ When using remote data backup (Rsync client), if the source and target directories are identical, the default will be set to backup data and the source directory data will be updated.

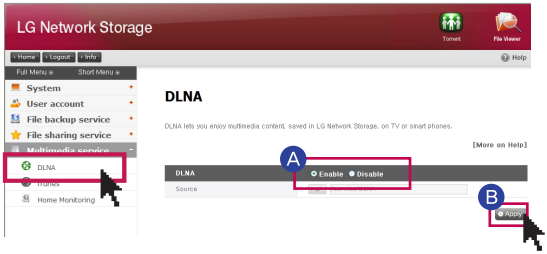
Ⓒ Click 'Restore' to begin remote data restoration.
The screen during data restoration will be identical to that during remote data backup.

11-1. Multimedia service DLNA

DLNA(Digital Living Network Alliance) is a function that connects digital machines such as PC, hard disk and digital TV to a network through a home network, and enables to share multimedia data such as music, video, image from other device. DLNA can be divided into a side providing photograph, music, video, DMS(Digital Media Server), and (Digital Media Player) , which receives the data. In order to use the function of DLNA, you should use the device with DLNA accreditation. This device obeys Digital Media Server(DMS) function among standard functions of DLNA

1. Activating/Inactivating DLNA

You can set up as methods as follows in order to activate or inactivate DLNA.



A 'Multimedia service' -> click on use 'DLNA' -> click on use 'Enable'

B Click on 'Apply'

※ In case of inactivation, you can chose 'Disable'

2. Saving multimedia data in original route

You can read, write and share multimedia data of LG Network Storage through the network.

A Operate windows search engine.

B Copy multimedia file to service\DLNA

Tip

※ Do not delete the original route established (default: \service\DLNA). Sharing multimedia may be stopped.

※ Please use supporting multimedia format file. A format that is not supporting may inadequately play the multimedia.

※ In case of a format that is not supporting in Digital Media Player such as TV, even if LG Network Storage supports it, it may be incorrectly displayed.

3. Viewing multimedia using DLNA.

When using DLNA by using a PC loaded Microsoft Windows7

Ⓐ Choose Control Panel> Hardware and Sound> Add a new device.

Ⓑ Once LG Network Storage is found, click on Next, and perform a device recognition.

Ⓒ Operate Windows Media Center or Windows Media Player.

Ⓓ Enjoy the multimedia information saved in LG Network Storage by choosing LG Media Server in Library.

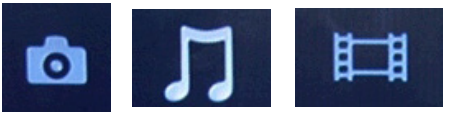
Tip

※ For more details regarding use method of Windows Media Player 11, please refer to help function of Windows Media Player 11.

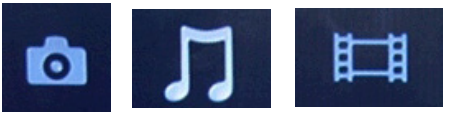
※ It is possible that an exclusive DLNA server software is installed on PC depending on PC. For more details, please refer to user manual of the PC you are using.

4. Playing the content of DLNA server on PS3™

When you turn on the PS3™, the DLNA server within the same network is searched. And an icon of the searched server is displayed in (picture)/(music)/(video).



Ⓐ Choose the icon of the DLNA server to be connected from (picture)/ (music)/(video) of home menu. All of the folders you can use and files that can be played on PS3™ are displayed.



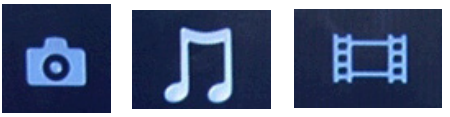
Ⓑ Choose the file to play.

Tip

※ PS3™ should be connected to the network. For more details regarding network set-up, please refer to (set-up) > (network set-up) > (internet access set-up).
- When you convert an assignment method of IP address from AutoIP to DHCP on the network you are using, please re-search the DLNA server from (search media server).
-DLNA server icon is only displayed when (set-up) > (network set-up) > (access media server) is activated.
- Name of folder displayed varies according to the DLNA server. Default is LG-NAS.
- It is possible that some file cannot be played or there might be limited operation during play according to a machine in use.
- You cannot play the contents with protected copyright.
- File name of the data saved on a server, which does not counter the DLNA may have "*". Such file may not be played on PS3™. In addition, even when it is played on PS3™, it might not be played on different machines.

5. Searching DLNA server manually on PS3™

You can re-search the DLNA server within the same network. It is used when DLNA server is not found after turning on PS3™. Choose (search media server) in (picture)/(music)/(video).



Search result is displayed and when you return to home menu, a list of DLNA server to which you can connect is displayed.

(Search media server) is only displayed when [connect media server] is activated in (network set-up) of (set-up).
[When using DLNA on digital photo frame]
i. Activate the DLNA function in LG Network Storage
ii. Set up initialization and install a driver in accordance with the user manual of the digital photo frame.
iii. Search LG Network Storage within the network using a search function of the digital photo frame.
iv. Set up LG Network Storage network from the digital photo frame.
v. You can enjoy the photographs from the digital photo frame.

Tip

※ As for supporting photograph file form, photograph access and viewing method, please refer to the user manual of the digital photo frame.

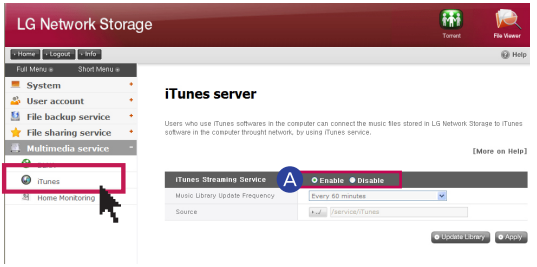
※ For connection set-up between the digital frame and LG Network Storage, please refer to DMA user manual of the digital photo frame.

6. When using AV machine as DLNA

You can use the contents by activating DLNA function connected via network. A setting up method varies according to the connected machine. For more details, please refer to a user manual of the connected machine.

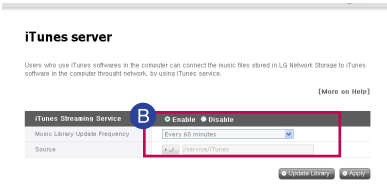
11-2. Multimedia service iTunes

☞ It is possible to play music file saved in LG Network Storage using iTunes service with iTunes program for PC/Mac. It does not affect a storage space of PC/Mac as all music are transferred with streaming type.



Ⓐ 'Multimedia service' -> click on use 'iTunes' -> click on use 'Enable'

※ If you do not want to use, choose 'Disable'



Ⓑ It sets up an interval of update of music file.

— **manual update (compulsory)**

It is performed one time when the service of the music file list for streaming operates.

— **every 60 minutes (automatic)**

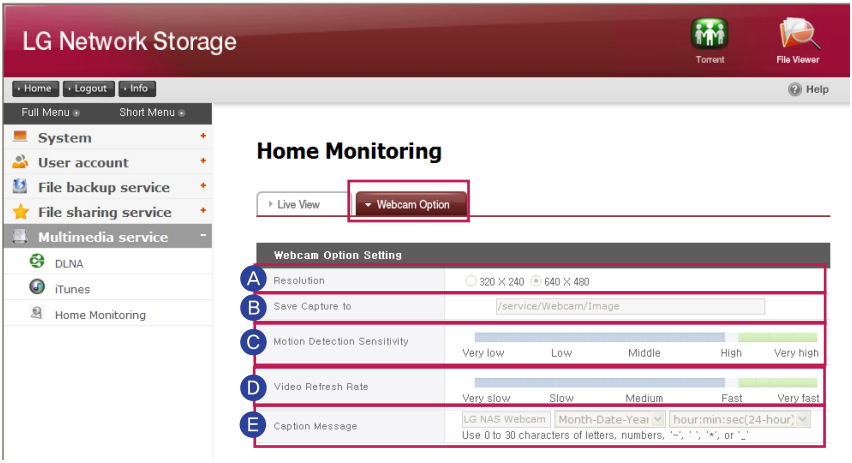
Music file list is updated regularly every 60 minutes. You should restart a client program in order to obtain an updated music file list.

Ⓒ Click on 'Apply'

※ If the music file is not updated on a regular basis, compulsory update option is recommended as creation of the music file list may take some time.

11-3. Multimedia service Home Monitoring

☞ You can connect USB webcam to NAS to use a live view and screen captre function.



Option Setting

Ⓐ Resolution : Adjust resolution of live view and captured images.

Ⓑ Save Capture to : Designate a directory to save a captured image.

Ⓒ Motion detection sensitivity : Refresh the screen, detecting smaller motion for larger detection value.

Motion detection : Detect motion of the subject shot by the camera and refresh the screen.

Ⓓ Video Refresh Rate : Adjust a refresh rate of the screen on the web.

※ When the network is slow, the screen can be regreshed before the entire image is loaded. In such a case, lower the frequency rate and try.

Ⓔ Caption Message : Designate a text to be shown on the captured screen.

※ You might be charged with a high fee when connecting to a cellular network using a smart phone.

※ LG Network Storage supports UVC(USB Video Class) - compatible web camera only. Please check whether your web camera is a USV-compatible model.

12-1. The top menu File viewer

☞ File viewer is a web file management interface which enables directly upload, download, copy, move, delete, rename a file or directory within a share folder of LG Network Storage server through using web browser.

– **Browser requirement specification**
IE 6 or higher , Firefox 3.5 or higher, Safari, Opera,

– **Download**
choose a file and click on a download button.
※ It is required to use 7zip when unzipping a downloaded zipfile.
Please use 7zip in Mac OS.

– **Upload**
When you click on search button following clicking on download button, you can choose a file to upload to this directory. If you wish to rewrite the file with the same file name, choose rewrite. Otherwise choose skip.
File upload starts when you click on transfer button.

※ You cannot upload a single file with more than a size of 2GB.
Maximum number for file upload is 256.

– **Copy**
choose file/folder and click on copy file/folder
choose a subject
When a clash happens due to copying of file/folder with the same name, the copy of file/folder is automatically cancelled.

– **Move**
choose file and click on move
choose a subject
When a clash happens due to movement of file/folder with the same name, the movement of file/folder is automatically cancelled.

– **Rename**
choose file or folder and click on rename
enter with a new name and press enter

– **New Dir**
move to a directory in which a folder will be created
click on create folder
enter a name of the folder and click on 'confirm' and apply the set-up.

12-1. The top menu File viewer

– **Delete**
choose file or folder and click on delete

– **New File**
click on a new file
enter with a new name and press enter.

– **Viewing image**
choose an image file
click on view button
You can view an enlarged image file within the folder.

– **Public link**
enter a link expiration date. (days)
you can set up a password. (option)
click on create button
use a created link that is copied

※ An address of the open link creates IP address of LG Network Storage, which has been set up as a basis.
When LG Network Storage is accessible from the outside, open link becomes accessible from the outside.
Example) In case of an internal network, you can access with http://192.168.xxx.xxx and it is accessible from the outside with http://xxx.lgnas.com . However you must access using http://xxx.lgnas.com in order to download from the outside.

– Playing music
choose a music file
click on play button on detail information window.

– Viewing a file list
list : It displays file/folder as a list.
thumbnail : it displays file/folder as a thumbnail.

12-2. The top menu Information of the top menu

Ⓐ Click on 'My information' button on the top left. It displays current user information.

Ⓑ Click on 'edit' button on the bottom right side of the menu.

Ⓒ Enter the edited contents and put a previous password to "user password", then click on 'confirm' button. This completes the editing.

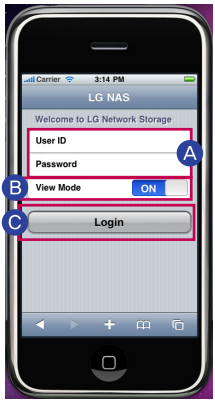
※ If you wish to change a password, enter a previous password in "user password" and then enter a password to which you want to change in "new password" and "new password confirmation".

13. Mobile UI To Use on iPhone

☞ By using mobile UI, you can access LG Network Storage anywhere with an internet connection, check files and enjoy music, pictures and videos stored in Network Storage.

※ Enter DDNS / IP address of LG Network Storage in the Safari on iPhone(iPod and iPad). (Touch '+' on the bottom of the login screen and 'Add to Safari homepage' for convenient use)

1. Login Screen



Ⓐ Enter your user ID and password.

Ⓑ If the view mode is on, it is in a file viewer mode. If the view mode is off, you will see a desktop system page.

Ⓒ Touch 'Login' with the view mode 'on'.

13. Mobile UI To Use on iPhone

2. File Viewer Screen

A Service and user-designated folder(default: volume1_public/volume2_public) will appear.

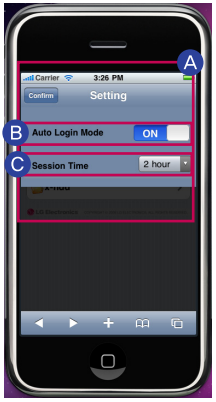
※ Folders may vary in different models.

B Select a file that you want and open.

※ You can open text files such as ppt, pdf, doc, txt and xls, and music, image and video files that can be played on iPhone such as mp4, mp3, jpg and gif.

※ You need to convert video files to MP4 files to stream videos, which are in Network storage, on iPhone(iPod and iPad).

3. Setting Screen



A You can change the setting only when you log into the administrator's account.

B Auto Login Mode remembers ID and password on the login screen.

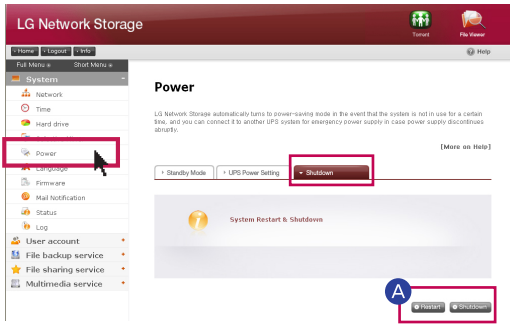
C You can change the time for login termination by setting session time.

14. Network Storage management and self-diagnostic function

☞ It explains about maintenance management and self-diagnostic function of LG Network Storage in general.

1. LG Network Storage shut down/restart

It gives notice to all users connected to save files in operation and stop using LG Network Storage.



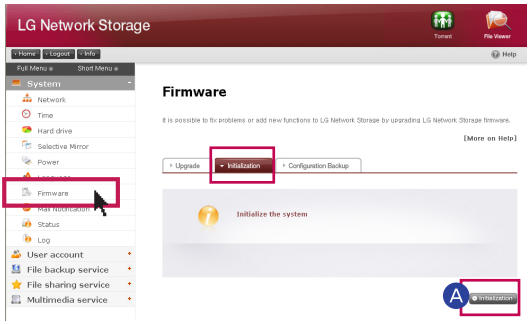
Ⓐ Move to a tab of administrator web menu -> System -> Power ->'Shut down'. You can restart the system by pressing 'restart' or end by pressing 'shut down' according to the explanation.

※ If you shut down LG Network Storage using a button, press on the power button until you hear a buzzer sound. LG Network Storage starts shutting down if you remove your hand after the buzzer beeps, which means the start of shut-down.

2. Administrator password and initialization of the network set-up

You can initialize the system with default.

※ In this case, registered user information and data disappear completely and they are not restorable, therefore please set up with a caution.



Ⓐ Move an administrator web menu to -> system -> firmware -> "initialization" tab. Click on the 'initialization' button according to the explanation.

Categories initialized with LG Network Storage default

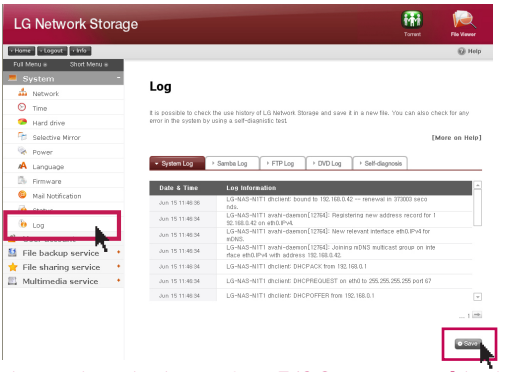
- system administrator ID password: admin, admin
- network set-up/TCP/IP organization: DHCP mode set as a standard
- organization information of the hard disk
- set-up value of the service -user / folder / group list

Log in by entering user ID 'admin' and password 'admin'.

14. Network Storage management and self-diagnostic function

3. System information check and save

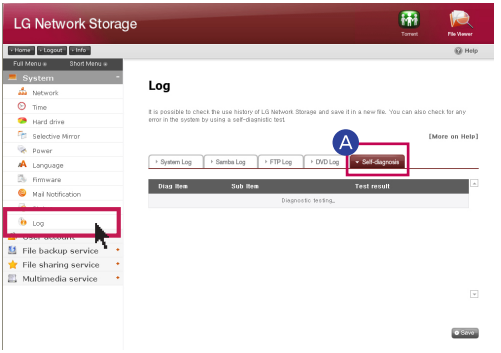
You can check by opening administrator's web menu, system -> log -> (system log, Samba log, FTP lo , DVD log, or save in PC by clicking on the "save" button on the bottom.



※ For more details regarding tab, please refer to 7-13 System set-up [checking system set-up log]

4. Operating self-diagnostic mode

LG Network Storage helps users to be aware easily and take necessary measures if there is a problem created in the server using internal self-diagnostic mode. Volume needs to be organized in advance prior to operation of "self-diagnosis".



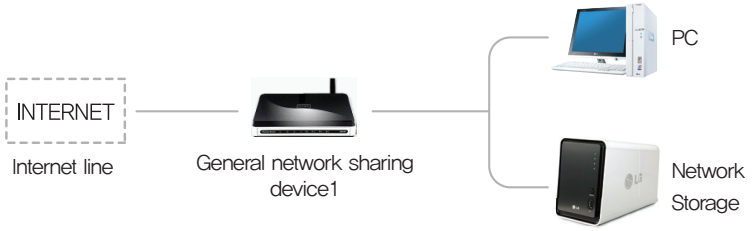
Ⓐ Administrator, even while in operation, can perform an immediate self-diagnosis of LG Network Storage by selecting administrator's web menu -> System -> log -> "self-diagnosis" tab.

15. Method to set up a network sharing device

When you cannot set up automatic network sharing device (UPnP setting) on DDNS set-up.

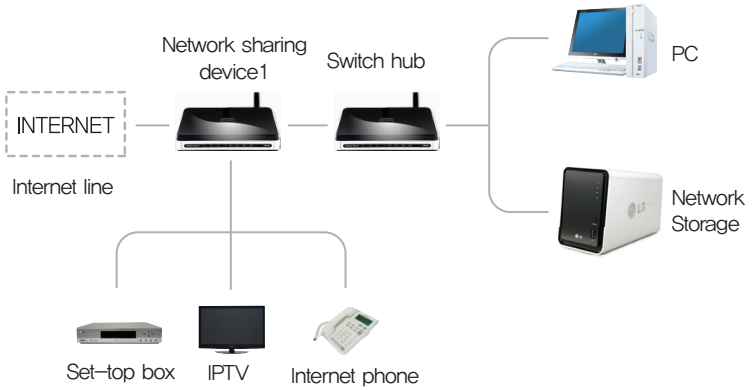
☞ There might be cases the internet games cannot be operated on PC depending on the set-up type of DMZ, therefore please mind this when setting up DMZ.

1. Standard connection Case



- After connecting to the network sharing device, enter the internal IP of 'Network Storage' in DMZ.

2. Switch hub Case



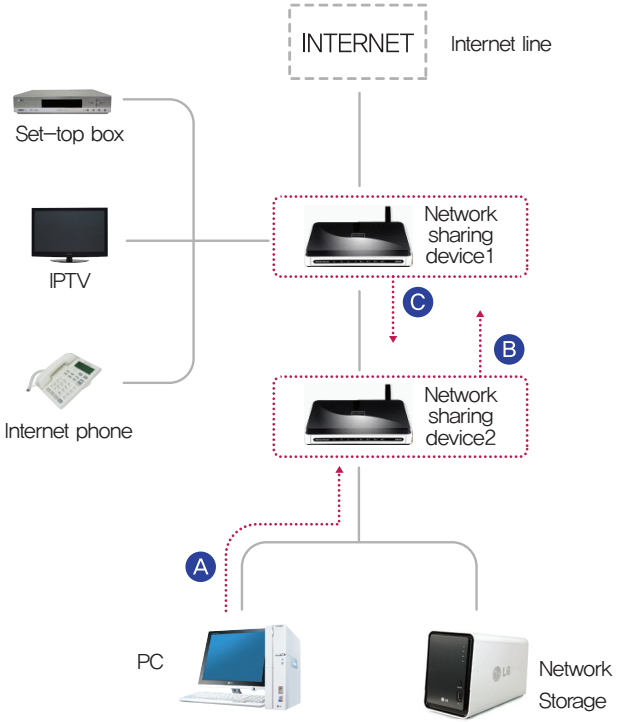
- After connecting to the network sharing device, enter the internal IP of 'Network Storage' in DMZ.

15. Method to set up a network sharing device

When you cannot set up automatic network sharing device (UPnP setting) on DDNS set-up.

☞ When you cannot set up automatic network sharing device (UPnP setting) on DDNS set-up In case of presence of 2 network sharing devices

3. Case of 2 network sharing devices



Ⓐ Check IP of network sharing device2 in PC.

Ⓑ Check WAN IP and gateway (IP of the network sharing device1) on the set-up screen of the network sharing device2.

※ Please refer to a manual of the pertinent network sharing device.

Ⓒ Connect with network sharing device1 and select the DMZ set-up. Then enter WAN IP that has been checked from the network sharing device2 in the DMZ IP of the network sharing device1.

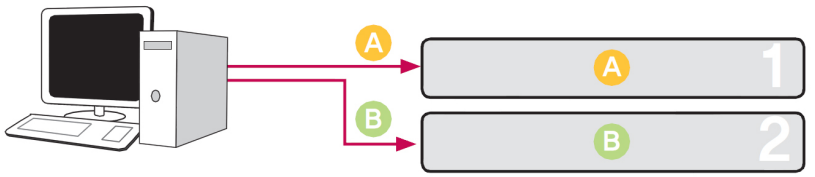
※ Network sharing device1 is the case including a network sharing device provided by the internet company.

16-1. Supplement Volume Construction & RAID Configuration

☞ This section describes volume configuration and supported RAID level.

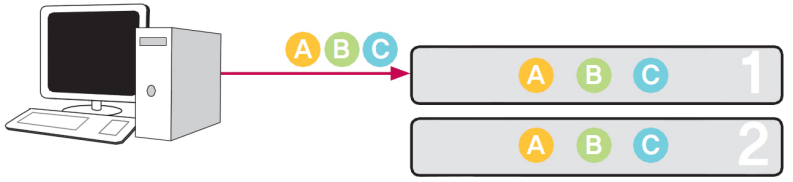
1. Single Disk (None) volumes

The volume can be configured to each Disk without configuring the RAID. This issimilar to methods with general PCs that use Disks.
If the Disk is damaged, the damaged Disk data may be lost.



2. Mirroring volumes

Data can be exactly replicated to the Disk through this technique. If one Disk becomes damaged in the volume, data can be efficiently transferred, saved and backed up to another configured Disk. The volume's storage capacity is equal to that of the smallest Disk in the RAID1, as the data is reproduced from Disk to Disk. The data backup is a priority during RAID1.
The saving of important data is recommended.

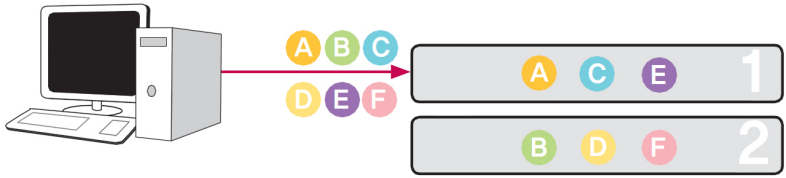


3. RAID0 striping volume

The Disks are configured in parallel so that they are all being used at once to store data, as if they were one Disk in summation. Because the data is saved to each Disk in parallel, many files of low capacity are read simultaneously but with superior efficiency. Many low capacity files are read because multiple blocks of data are stored to each Disk, though the performance is excellent at this time. In order to secure data stored, Information is not read when at least one Disk is damaged. Subsequently, if the Disk is damaged, the saved data in the volume will be lost.

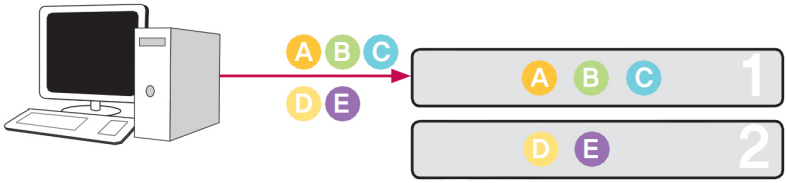
The storage capacity of the volume as a whole is the sum of the capacities of all of the Disks.

This technique must not be used for the saving of important data, but rather for fast data access and for maintenance of the security of its volume capacity.



4. JBOD Linear volume

The Disks are configured in series so that they are all being used at once to store data, as if they were one Disk in summation. The volume's storage capacity can be maximized, as the data is stored to the Disks in sequence. Data must not be written in the event of a damaged Disk to safeguard saving capacity. In this way, if a Disk is damaged, saved date in the volume will be lost. The storage capacity of the volume as a whole is the sum of the capacities of all of the Disks. To maximize the safeguard of capacity of the volume, saving of important data is not recommended.



16-2. Supplement Open source software information

☞ The following GPL executables and LGPL libraries used in this product are subject to the GPL/LGPL License Agreements

GPLv2.0

adduser	gcc	lockfile-progs	psmisc
apcupsd	gdbm	logrotate	quota
apt	gpm	lprng	readline
ascii-3.8	grep	lsb	scst-iscsi
base-files	hostname	lzo	sed
base-passwd	ifplugd	mdadm	sg3-utils
bash	ifupdown	module-init-tools	shadow
bash-2.05b	inadynd	mtd	smartmontools
busybox	inotify-tools	mt-daapd	smbwebclient
bzip2	iptables	netatalk	ssmtp
ca-certificates	jQuery	netbase	sysklogd
dash	krb5	net-tools	sysstat
dbus	klogd	nfs-utils	time
debian-archive-keyring	libcap	noflushd	tree
debianutils	libgdbm	ntfs-3g	transmission
dpkg	libid3tag	ntfsprogs	u-boot
e2fsprogs	libmcrypt4	pam	udev
ethtool	libtool	perl	util-linux
lfile-rc	Linux Kernel	proftpd	

GPLv3.0

binutils gnupg parted rsync samba wget

LGPLv2.1

acl	dialog	libdaemon	lzma
Ajaxplorer	glib2.0	libexif	mpfr
attr	glibc	libgcrypt	packer
avahi	gmp	libgpg-error	ufo
codepress	gnutls8	libiconv	
confuse	keyutils	libidn	
debmapper		liblockfile	
		libscew	
		libtasn1	
		libusb	

16-2. Supplement Open source software information

1. LG Electronics offers to provide source code to you on CD-ROM for a charge covering the cost of performing such distribution, such as the cost of media, shipping and handling upon e-mail request to LG Electronics at

※ opensource@lge.com
This offer is valid for a period of three (3) years from the date of the distribution of this product by LG Electronics.

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http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html.

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5. This product includes other open source software.

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cyrus-sasl2 : Copyright © 1998-2003 Carnegie Mellon University

debconf : Copyright © 1999-2006 Joey Hess <joeyh@debian.org>.

dhcp3 : Copyright © Internet Systems Consortium (ISC) <dhcp-users@isc.org>

dibi : Copyright © 2005, 2008 David Grudl (http://davidgrudl.com)

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